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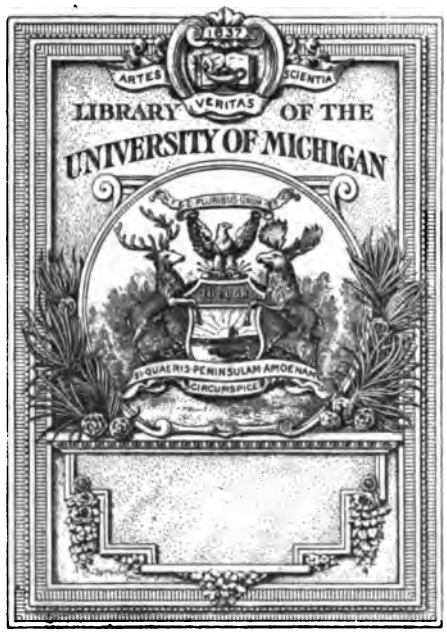
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CANADA
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JOURNAL.

A

Monthly Record

OF

MEDICAL AND SURGICAL SCIENCE

EDITED BY

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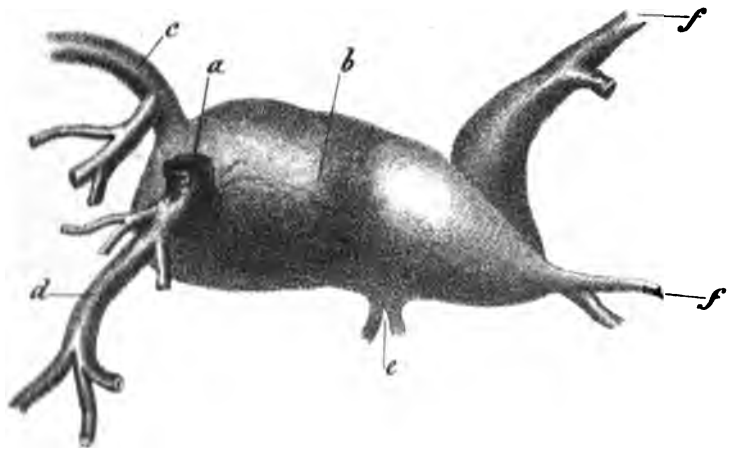

ANEURISM OF THE HEPATIC ARTERY.

(a) Hepatic artery, (b) right branch mainly involved, (c) left branch, (d) gastro-duodenalis, (e) cystic arteries, (*f*) occluded branches of right trunk.

CANADA

MEDICAL & SURGICAL JOURNAL

Original Communications.

ANEURISM OF HEPATIC ARTERY;

MULTIPLE ABSCESSES OF THE LIVER.

BY GEORGE ROSS, A. M., M.D.,

PROFESSOR OF CLINICAL MEDICINE, McGILL UNIVERSITY, ATTENDING PHYSICIAN TO THE MONTREAL GENERAL HOSPITAL,

—AND—

WILLIAM OSLER, M.D., L.R.C.P.,

PROFESSOR OF INSTITUTES OF MEDICINE, McGILL UNIVERSITY.

(Read before the Medico-Chirurgical Society, Montreal.)

Aneurism of the hepatic artery being of such very rare occurrence and the case which we are about to relate presenting in addition some remarkable pathological features, we are led to believe that it will be found of considerable interest.

For the notes of the case we are indebted to Mr. JOHN BRODIE, ward clerk.

W. H., æt. 21, single; height 5 feet 11½ inches; weight, about 140 lbs,—was admitted into the Montreal General Hospital on the 8th of November, 1876, complaining of pains in the right side and great weakness.

The patient was born in Wisconsin, U. S., and lived there until about two years ago, since which time he has resided in this city. His family history, as far as could be ascertained, is good. Has never been ill with the exception of small-pox, and a mild pneumonia of the left lung. Has never had dysentery nor

piles, nor any abdominal or rectal trouble of any kind. Has always been of extremely temperate habits.

His present illness began, he says, about the 1st of September last, with what he describes as a severe cramping pain in the stomach, which began in the morning and continued all day. At 4.30 p.m. of that day he had a violent rigor, lasting about twenty minutes. This was followed by high fever and perspiration. Similar chills recurred, he says, with great regularity, every second day for five or six times, and then ceased after he had taken some medicine from the Hospital Dispensary. At this time his appetite became poor, he felt weak and was very low-spirited, and observed that his skin assumed a sallow colour. Ever since he has been gradually getting weaker and losing flesh pretty rapidly, and the sallow tint of the skin has been steadily increasing in intensity. There has also been almost constantly present a dull, aching pain in the right side over the region of the liver. Slighter rigors, followed by fever and some perspiration, have also occurred several times at irregular intervals.

Present Condition.—Much emaciated, somewhat anæmic, but the whole skin of a dirty, dingy, sallow hue, without any jaundice,—the sclerotic clear, and not yellowish, There is a very peculiar, pungent, somewhat feculent and extremely disagreeable odor exhaled from the surface of the body.

There is slight fullness of the right hypochondriac region which is also somewhat tender upon pressure. *Liver.*—Dulness extends from the 4th interspace to one inch below the margin of the ribs. The belly is full and tumid, and tenderness is also found on pressure over the epigastrium. Splenic dulness not increased. Tongue slightly furred, rather dry, and with red edges. Bowels have been, and still are, considerably relaxed, the motions being light-coloured and especially offensive. Urine, sp. gr. 1019, high-coloured, but containing neither bile pigment, albumen nor sugar.

Heart—Situation and sounds normal, pulse 116. *Lungs.* Resonance and breathing normal throughout, except at the base of

the right lung where there is an area of dulness with enfeebled respiration. Temperature 105° F.

Ordered quinine gr. xx each evening.

Nov. 11*th.*—Has not complained much of the pain. Disagreeable odour from the body very marked. Bowels are regular, but motions are ochre-coloured and offensive. Tongue clean. A dull red flush on cheeks especially in afternoon. Has occasional slight epistaxis. Temperature has ranged between 102°F. and 103° F.

16*th.*—Is getting weaker but is quite cheerful, and feels well. Tongue moist and clean. Takes nourishing food very well, and bowels remain regular. Never vomits. Temperature continues equally high, always rising 2° or more in the evening, followed by sweating which is sometimes very profuse. This usually commences at 6 p.m. Urine 43 oz. sp. gr. 1022. No bile pigment, albumen or sugar.

23*rd.*—The volume of the liver has considerably increased, and, owing to the progressive emaciation, bulging of the lower ribs on the right side has become quite apparent. Dulness extends from the top of the 4th rib to two inches below the margin of the ribs. The lower edge of the liver cannot be felt owing to the fulness of the abdomen and its tender condition. Pain on pressure over liver region and epigastrium increased. His strength is failing fast, and the sallow colour has become deepened. The odour from his body has been so offensive in the ward for some time that the House Surgeon has been obliged to employ spongings with carbolized solutions, and disinfectants round the bed. He lies almost continuously on his back, occasionally turning slightly towards the right side, but any attempt at turning on his left side is accompanied by severe pain and a feeling of a dragging and weight in the region of the liver. The superficial veins on the right side of the chest are very large and prominent. Ordered linseed poultices over the liver.

25*th.*—Tenderness less. Hepatic dulness increased in area, measuring 8 inches vertically at the line of the nipple. No localized fulness or redness of the skin or fluctuation to be found

anywhere. The enlargement of the organ is very general and uniform. Pulse 128, very small and feeble. Temperature continues high with evening perspirations. Is remarkably cheerful, saying he feels well but weak, although he suffers a good. deal of pain. Ordered acid nitro-mur. dil. Tr. calumb., a a 3ss ter die.

29*th.*—Pain and tenderness low down on the right side, Excessive pain is caused by the slightest change of posture. Lies constantly on the right side. Pulse 130. His diet throughout has been of a most nourishing kind. Milk abundantly, beef-tea, eggs, wine, &c.

Dec. 3*rd.*—This morning there occcurred a temporary collapse, marked by a rapid fall of the thermometer to a remarkably low level, 94.8°. F., accompanied by great prostration and a cold sweat. In the evening the temperature rose to 102.4.° F., and during the night great pain was felt in the left iliac region, which was tender.

Ordered an opiate, and a small blister to this region.

6*th.*—Is rapidly sinking. The signs of effusion in the right pleura, hitherto stationary, have in the last few days, rapidly extended, and there is now dulness over the lower two-thirds of that side, with absence of breathing, and an amphoric note beneath the right clavicle.

7*th.*—Died at 6.00 a.m.

Autopsy, 31 hours after Death.

Rigor mortis present. Skin of a dirty-brown colour. In the abdomen about 22 oz. of yellow turbid fluid. In the right pleural cavity about 20 oz. of similar fluid. *Right lung* collapsed. The pleura covered with a thin layer of greenish-yellow lymph. On section, the lung is dark, airless and sodden. *Left Lung.* On the visceral layer of the pleura, especially behind, are numerous small ecchymoses. On section, organ contains much blood, is firm, and only slightly crepitant. *Heart* normal. *Kidneys* rather pale, cortex swollen, and malpighian tufts injected. *Spleen*, weight 445 grms. (14 oz), adherent to the stomach. Organ soft. On section dark and congested.

Intestines normal. No trace of ulceration in the large intestine. *Bladder* and prostate, normal.

Liver, 4879½ grammes, (10¾ lbs). The peritoneum around it in many places showing signs of inflammation. The left lobe intimately adherent to the stomach by a thick layer of firm yellowish-coloured lymph. The right lobe also cemented to parts in its neighbourhood by lymph of a similar character. A small amount is also observed on the descending colon, but the general peritoneal surface is not affected, the serous covering of the intestines being clear and glistening. The liver itself retains its normal shape, the upper surface is smooth and not adherent. Towards the right border a yellowish-coloured swelling is evident which is perceptibly fluctuating. Other less distinct yellowish spots are seen scattered over the organ. To the touch the upper and back part of the right lobe is exceedingly soft and fluctuating. On the under surface many yellowish-white nodules are apparent, some large, others quite small, all distinctly fluctuating. A similar one of large size is apparent on the under surface of the left lobe. A transverse incision through both lobes reveals the fact that we have to deal with a diffuse suppurative hepatitis. An immense quantity of yellowish-white, custard-like pus flowed out. The right lobe is completely honey-combed by a series of small, closely united abscesses, ranging in size from a marble to a walnut. The septa between these absceses are composed of a dark-red tissue. Most of these small abscesses communicate together; some have merged to form larger ones. They all possess distinct lining membranes which are frequently stained with bile. The left lobe is in a similar condition, and in both the abscesses extend throughout the thickness of the organ. Thus, the only portions of liver-substance which are found comparatively free are the lobus quadratus and that portion of the organ lying immediately above and a little to the left of the gall bladder. These parts on section are of a dark colour, lobules distinct, small bile vessels very evident. The gall-bladder is small, contains about three drachms of a clear, somewhat viscid secretion. On pressing it and along its ducts no fluid could be forced out at the papilla biliaria. It was with

much difficulty that a probe could be passed along the cystic duct, owing to an unusual number of irregular folds of its mucous membrane which were evident when the duct was slit up. The common bile duct itself was patent, the mucous membrane of its upper two-thirds stained with bile. There were no clots in the superior mesenteric, gastric, or splenic veins. On slitting up the portal vein itself, a small abscess was found to project into the calibre of one of its right divisions. The tissue in the neighborhood of these main divisions was infiltrated with pus. A firm nodule was felt at the portal fissure and mistaken at first for a bunch of lymph glands. Section of this, however, showed it to be distinctly laminated, and careful dissection of the part revealed the existence of an *aneurism* just at the bifurcation of the Hepatic Artery, but occupying chiefly the right branch. (see plate.) The dilatation begins immediately beyond the gastro-duodenalis, (*d*) and extends for about 3 inches as a somewhat conical swelling. The left hepatic artery (*c*) arises from the obtuse end of the aneurism and is unaffected. At its thickest part its circumference measures 3 inches. For 2½ inches it passes to the right and gives off two branches (*f*) which appear occluded, then turns at right angles and passes backward for 1¼ in., towards the posterior border of the liver, terminating by a conical extremity which is continuous with the main branch of the artery. The arteries of the body had been injected, and the red mass is found in the trunk of the hepatic before its bifurcation, in the gastro-duodenalis, and the left hepatic branches, all of which are full and tense. The hepatic artery appears to enter the aneurism. about ¼ of an inch from the obtuse end, the gastro-duodenalis and left hepatic being given off apparently from the dilatation itself; and on slitting up the hepatic artery it appears at first sight as if these were its only branches, and that its communication with the aneurismal sac had become obliterated. Careful inspection, however, of the lower and posterior wall reveals a small canal, the calibre of a hypodermic needle, which leads directly into the sac. The aneurism being opened by a longitudinal cut on the upper surface, it is seen that the anterior third, comprising the rounded end, is completely filled with firm

decolourized laminæ of fibrin, concentrically arranged. The middle third of the sac contains semi-coagulated blood, and red injection mass, after emptying which there is seen a cavity about the size of a small walnut. This is in communication with the hepatic artery by the small canal already referred to, which passes for rather more than half an inch through the fibrinous laminæ of the anterior end. Two small branches, both containing injection pass from the cavity, one the cystic, *(e)* going to the gall-bladder, the other a somewhat larger branch, passing to the central part of the organ. The sac is lined with sheets of fibrin, which, at the under part were thinner than elsewhere, and at this point the blood has infiltrated the proper coats of the aneurism, which, in consequence, look reddish black. The terminal portion of the sac lay chiefly in the substance of the right lobe, surrounded by suppurating hepatic tissue, which had to be dissected away to expose it; and on section the cavity is found almost completely obliterated by fibrinous laminæ, which in the centre are softer, and not so colourless as the other end of the sac. No direct passage could be traced through this from the central cavity, and the main branches given off from the aneurism are found empty, and at their commencement plugged with fibrin, which in several extends as a thin sheet along the intima.

The condition appears to be one of simple aneurismal dilatation of the vessel. the walls being thin, slightly roughened on the interior, but not markedly atheromatous. The trunk of the hepatic artery itself looks healthy, and there are no evidences of general vascular degeneration.

Remarks.—Aneurismal dilatation of the Hepatic Artery would appear to be of rare occurrence, the chief reason, of course, being that its main cause—atheromatous degeneration—is very seldom met with in this situation. Embolism of this artery Frerichs has never seen—the situation and mode of giving off of the vessel being such as to hinder the entrance therein of foreign substances from the stream of the aorta. One single case of the kind has been recorded by Virchow, where an hepatic abscess followed embolism from a gangrened lung.

The same author (Frerichs) alludes to four, or possibly five,

as the only recorded cases of Aneurism of the Hepatic Artery. They are those of Ledieu, Stokes, Sestier, Wallmann and Lebert. In the case of Ledieu, the patient died of some pulmonary complaint, and had never had any symptoms of hepatic disease. There was found, just before the giving off of the pyloric branch, on the hepatic artery, a small hard tumour the size of a hazel nut. It was entirely composed of firm laminated fibrin, and had completely occluded the main artery. The case of Sestier was also obscure. There had been "symptoms of some chronic painful affection of the stomach." The right branch of the vessel was found occluded by a small aneurism filled with clots, and the gall-bladder was gangrenous.

In Wallmann's patient—a female—there was an account of attacks of violent pain in the upper part of the abdomen, coming on after intervals of several days, gradual loss of strength, and emaciation. There was enlargement of both liver and spleen. No ascites; no fever. Then there supervened obstruction of the ducts with perceptible fulness of the gall-bladder, and very deep jaundice. She was believed to be suffering from gall-stones. Then fever, abdominal tenderness, collapse and death. A large aneurismal tumour was found in the situation of the lesser omentum. It was the size of a child's head, and showed a rent communicating with the cavity of the abdomen.

Lebert's case was accompanied by severe pains in the pit of the stomach, followed after a time by hæmatemesis and melæna. Vomiting was persistent, and the patient soon died. The aneurism involved the main trunk of the vessel, and communicated by a fistulous opening with the gall-bladder, by which means the blood had found its way into the duodenum and stomach.

From a relation of these cases Frerichs sums up as follows the clinical features resulting from this lesion:

"The symptoms to which aneurism of the hepatic artery gives rise are accordingly of a three-fold nature. In the first place there is the tumour, which is sometimes remarkably large and displaces the liver; secondly, there is the neuralgic pain, produced by pressure upon the hepatic plexus of nerves; and lastly there is jaundice caused by compression of the bile ducts. The

fatal termination in most cases takes place under symptoms of internal hæmorrhage."

We are inclined, therefore, to look at the record of the present case as of considerable importance, inasmuch as it clearly shows that besides, or even without, any of the symptoms mentioned by writers as accompanying aneurism of the hepatic artery, it may actually institute an entirely different series, — those namely of acute suppurative hepatitis of a diffuse character. The case as it came under observation was one presenting the marked characteristics of the latter disease, and every possible source of contamination of the portal system which might have given rise to it was interrogated in vain. Of course, we need hardly say that the real cause was entirely unsuspected, nor do we see but that the diagnosis of the aneurism was truly impossible. In the future, however, we must admit, in cases owning no other evident cause, that hepatic aneurism may be the starting point of acute hepatic abscess.

Among the many interesting points in connection with this case, the causation of the multiple abscesses takes the front rank; not only because in this one alone among the recorded cases was the fatal termination due to a suppurative hepatitis, but also on account of the extreme rarity in the human subject of opportunities of studying upon this organ the effects of disease of the hepatic artery. Taking for granted, as from the careful examination we may justly do, that the portal system did not in this instance furnish the materies morbi, we have to consider the consequence of total obliteration of the hepatic artery, or of its main branches, and also the effect of small emboli, in the form of particles of fibrin, plugging its terminal twigs.

It will be necessary first to refer briefly to a few anatomical and pathological points in connection with the blood supply of the liver. This, as in the lungs, is two-fold; the portal vein ministering solely to the functions of the gland, the hepatic artery chiefly to its nutrition. The ultimate branches of the portal vein ramify at the periphery of the lobules, forming the interlobular vessels, from which numerous capillaries pass into the interior, and finally converge to the centres of the lobules, as

the ultimate radicals of the hepatic veins. The hepatic artery furnishes blood to the bile ducts, portal and hepatic veins, and the connective tissue of Glisson's sheath. Its capillaries empty their blood by small venules into the interlobular veins. Hence, remembering this distribution of the hepatic artery, it is easy to understand how that in cases of thrombosis of the portal vein, even where the obstruction is complete, the functions of the organ may be maintained, and both bile and glycogen secreted; for the capillary plexus of the lobules continues to receive through the interlobular veins the blood which has been emptied into the latter from the venules of the hepatic artery. The nutritive blood serves as a substitute, acts vicariously, for the functional. It has been maintained, and the statement passes current in the text-books, that the converse of this is true, viz: that the portal blood can replace the hepatic, the functional act for the nutritive. This view is based on experiments made upon the lower animals. Schiff states that in the cat the functions of the liver are performed just as well after ligature of the hepatic artery as before; and Betz found that in the dog, after tying the trunk of the hepatic and all the collateral branches, no important alteration took place either in the structure of the liver or in its secretion.

Cohnheim and Litten have shown, however, in a very important paper on "Disturbances in the Circulation of the Liver," (Virchow's Archiv. May, 1876), that in experiments on dogs arterial blood still reaches the liver even after ligation of the hepatic, the coronaria ventriculi, and the gastro-duodenalis, owing to the very extensive anastomoses and connections of these vessels. In the guinea-pig, on the other hand, the supply of arterial blood can be completely shut off, either from the whole organ or from individual lobes. In the former case the operation is always fatal within 24 hours, and even in this time important changes are found to have to have taken place in the organ. These are all the more marked if, instead of ligating all the arteries, only the one going to the extreme right lobe be tied. The result is an entire necrosis of the portion of the liver supplied by the ligatured artery, and in every instance the animal died within two days.

Cohnheim states that pathological proof of the correctness of this view is as yet wanting, but we are inclined to believe that by this case the deficiency is supplied; for we think the suppuration of the organ best explained on the view, that the shutting off the supply of blood, either by the gradual occlusion of the aneurism by clots, or by the quicker process of emboli conveyed away from the interior of the sac, produced numerous areas of necrosis, which subsequently became, by inflammation and a sequestering suppuration, converted into abscesses. It is impossible to determine, in the absence of any positive evidence, whether the process resulted from emboli or simply by the gradual obliteration of an important blood channel; and in any case there are certain difficulties which will occur to the minds of many in the view which we have suggested. There are at least two cases on record of total obliteration of the artery, without consecutive suppuration, one of which was from aneurism. Still, this, if occurring gradually, and not involving the pyloric artery, need not necessarily, as the above-mentioned experiments prove, deprive the liver of arterial blood. There is no reason to suppose that the obliteration in the case before us did not occur slowly, for the fibrinous laminæ, especially at the anterior end, were firm and tough. Again, on an embolic theory it might be urged that in this instance the emboli, consisting of fibrinous shreds from an aneurismal sac, should have produced simply mechanical effects, infractions, and not, as in the case of emboli proceeding from necrotic or suppurating foci, abscesses. Mechanical emboli do, however, sometimes produce suppuration, and in the liver might do so by causing death of the structures supplied by the obstructed arteries, viz: the portal vessels, bile ducts and connective tissue of Glisson. In the present case, supposing the process to depend on emboli, there would be arterial blood enough sent through collateral branches to furnish material for an active suppuration about the necrotic centres. Altogether, we think the embolic theory meets the case better than any other. We must remember, too, that the disease was not rapidly fatal, but came on slowly, lasted five weeks or more, and it is not unlikely that during time that much of

the fibrin was deposited, and the obliteration of the distal end of the aneurism took place. This is rendered still more probable by a consideration of the condition of the left hepatic branch, the commencement of which is involved in the aneurism, but which now, owing to the filling of the proximal end of the sac with fibrin, appears to be almost the direct continuation of the main trunk. In fact, for a short distance from the bifurcation, the upper wall of the left branch is made up of condensed fibrin, which is groved by the blood chanel. This explains, too, the occurrence of the abscesses in the territories supplied by the left branch. The almost entire obliteration of the obtuse end of the sac occurred, most probably after the mischief had been started by the escape of emboli. The appearance of the abscesses adds further support to this view. None of them looked recent or contained shreds of necrotic liver tissue, but all were filled with a creamy pus, and had walls lined by definite pyogenic membranes.

We have no clue to the origin of the aneurism itself. The age of the patient, and the absence of arterial degeneration elsewhere, are almost sufficient to exclude atheromatous degeneration as a cause, and the walls of the sac appear thinned but not evidently diseased. Of other agencies capable of producing aneurism, especially of smaller vessels, embolism is the most important, and, even in the absence of valvular disease, and remembering the unfavorable position of the hepatic artery for emboli, we are inclined to regard it as the most probable cause.

PATHOLOGIAL REPORT;

GENERAL HOSPITAL, MONTREAL,

For the year ending May 31st, 1877.*

By William Osler, M.D.

Records of exactly one hundred autopsies have been entered in the post-mortem book of the General Hospital for the year ending May 1st. A few of special interest occurring in private practice have been included.

* Published with the consent of the Medical Board.

I may mention that the post-mortems are performed under my direction by the students attending the hospital, and the system of inspection followed is that of Virchow at the Charité, Berlin, and fully given in his "Sections-Technik." The notes are taken on the spot from dictation.

I propose in the following Report to give brief summaries of the cases of practical and scientific interest. Some of them have already been published in the pages of this journal, to such a mere reference will be made.

When possible a synopsis of the clinical features will be given. I have grouped the cases under the various organs affected, believing this to be a more convenient method than dealing with the individual diseases, and in each case the organs are dealt with in the order of their pathological importance.

Osseous System.—Fractures.

Case lxxi.—*Fracture of 1st and 2nd ribs from direct violence; deep abscess of the neck; Empyema.* J. L., æt. 20, was truck on the sternum by the shaft of a fire engine; almost immediately after a tumor formed in left clavicular region, the arm on that side became paralysed and on admission was pulseless. Tumour inflamed, was opened, and discharged a milky fluid and blood, subseqently pus. Empyema supervened, and death.

Abscess found to be deep in the neck, immediately above the left pleura cavity, and about as large as a good-sized orange. On putting the fingers into the sac the ends of the fractured ribs can be felt in the posterior wall. The fracture of the 1st rib is straight, just external to the tuberosity; the inner end is embedded in the wall of the sac, the outer lies one and a half inches from it. The 2nd rib is fractured obliquely just external to the angle, and is also comminuted. The inner end projects into the sac, as a rough, sharp process, and lies at a higher level than the outer end which is external to the sac. Between the two is a small separated portion enclosed in the sac wall. The lining membrane of the cavity is stained, and in places covered with flakes of fibrin. Immediately below the anterior part of the floor

of the sack, the apex of the left lung is firmly attached, and separated from the abscess by condensed tissue, ¼ of an inch in thickness. At the posterior part of the floor only a thin membrane separates the latter from the pleural cavity. An orifice, in communication with an external one at the root of the neck, exists at the upper part of the anterior wall. The subclavian artery runs along the inner and upper part of the sac, being apparently lifted somewhat out of its course. It is completely obliterated by a thrombus, which begins an inch from the aorta and extends to the first portion of the axillary. The subclavian vein is also obliterated, though not in such a long part of its course. Above the artery, at the top of the sac, is the brachial plexus, the cords of which appear stretched and compressed.

Between 2–3 pints of pus in the left pleural cavity. Lung compressed.

Acute Necrosis—Pyæmia.

Case lxxxiii.— *Necrosis of Tibia. Ulcerative Endocarditis. Pyæmic Pneumonia.*—A. B., æt. 12, male. No definite history of an injury; pains of a rheumatic character about the joints, only slightly more marked at the left ankle; symptoms of pyæmia; death within a week.

Acute periosteal abscess found in the lower end of left tibia, with necrosis of the bone, which is denuded and roughened, especially in front. The cancellated part did not appear much affected.

Pericardium is beginning to inflame. In the wall of the conus of the right ventricle, is a purulent depot the size of a bean, and not far from it a superficial loss of substance, half the size of a three-penny-bit. Traces of atheroma in the sinuses of Valsalva. Scattered throughout both lungs were small, firm slightly-elevated spots, ranging in size from a pea to a marble. They are most abundant in the upper lobes. On section some were dark in colour, their firmness alone distinguishing them from the lung tissue; others had a greyish red appearance, while others again had softened in the centre, forming small abscesses. Small supernumerary spleen present.

CASE XCVI. — *Necrosis of Femur. Pyæmic Pneumonia. Abscess in superficial Muscles. Pustular eruption on skin.*— J. C., æt. 30.—The clinical features of the case are well summarized by Mr. Vineberg,* as follows: The disease attacked a strong and apparently healthy man; no history of injury; the symptoms at the outset simulated those of rheumatism; the rapid setting in of a pyæmia, which ran its course without rigors, or marked fluctuations, and remission of temperature; the presence of a pustular eruption and erysipelatous patches on the skin; which, with the tuberous elevations beneath the skin—not unlike farcy buds—and the general symptoms presented a clinical picture very like that of glanders.

Left Femur.—Muscles of anterior region of lower third of thigh infiltrated with pus, the posterior ones not so much, and here there are distinct abscssses in the muscles. The periosteum of the lower end of the femur is raised, and contains beneath it much pus, the bone is bare and roughened in front, behind and on the inner side; on the outer side the periosteum is still adherent. It is covered with a dirty greyish exudation. Scrapings from the bone and roughened surface examined with the microscope show an enormous number of large myeloplaques. The marrow where the bone was sawn through looks healthy, that of the end of the bone itself was not examined.

Skin.—Numerous flattened pustules, with reddened bases exists over the skin of trunk and upper extremities.

Muscles.—In those of the arms and legs, many small and tuberous swelling can be felt which, on section, are found to be abscesses in the substance of the muscles.

Long int. saphenous vein occluded by a thrombus.

Blood dark and fluid. During life there was a large number of Schultze's granular masses, and the net-work of fibrin fibrils which separated out on the slide under the microscope was unusually dense and coarse.

Commencing *Pericarditis* over right auricle.

Lungs.—Numerous firm, slightly-elevated nodules, ranging in size from a pea to a marble, in all the lobes, but most abun-

* In a paper read before the McGill Medical Society, May 8th, 1877.

dant in the lower. On section most of them present a white granular surface, interspersed here and there with hæmorrhages, some of the larger ones in the lower lobes have softened at the centre into abscesses. The margins of these pneumonic areas are congested, sometimes hæmorrhagic.

Cancer of the Vertebræ and Ribs.

Case lxxxii.—*Primary Cancer of bodies of 2nd and 3rd vertebræ and heads of corresponding ribs on right side. Secondary masses in ribs, liver and brain. Chronic Phthisis. Lobar Pneumonia.*

Histological Examination.

M. C., æt. 52.—Vertebræ, 2nd and 3rd. Bodies not enlarged, but soft and porous. On stripping off the anterior ligament, a soft, greyish-white juice oozed out. The transverse and articular processes also involved. Two soft cancerous outgrowth spring from the junctions of the laminæ and body of the 2nd, and encroach upon the calibre of the canal; at the centre of the back part of the body of the 3rd, is another tuberous outgrowth. The cord did not appear much compressed by these masses, and the membranes are unaffected.

Ribs, 2nd (right side). To two inches beyond the angle the bone is enlarged, double the size of the 3rd, the articular surfaces are bare. The compact tissue has disappeared, and the cancerous growth has elevated and infiltrated the periosteum. On section large cancellæ are seen, filled with a reddish-white juice. At the middle of this rib is an irregular swelling, one inch in length, which presents the same appearance as the head.

3rd Rib (right). Not nearly so much enlarged, the articular surfaces not affected. Compact tissue gone, but periosteum is free.

8th Rib (left). An elongated swelling about the middle, 1½ inches in length, most marked internally. On section external part soft and cuts readily; the central part is hard and dense.

9th Rib (left). A still larger swelling of same character, two inches in length; not hard in the centre, but not so porous as the heads of the affected ribs.

Liver not enlarged; contains a dozen or more white masses, situated superficially, ranging in size from a walnut to a small pea; surfaces of most on a level with liver—the larger are elevated and with depressed centres. On section many hæmorrhagic centres are seen.

Brain. A rounded cancerous mass—1½" by 1¼"—occupied the superior parietal convolution of the right side, extending into the longitudinal fissure for a short distance. On section it is greyish-yellow in colour, except at the centre and margins, where there is more blood. Small masses also in the right corpus striatum and left thalamus opticus, and on the pia mater of lower convolution of the left occipital lobe, and on the pia mater of right crus cerebri. All of these, on examination, are cancerous in character

Lungs. Left is emphysematous, several very large blebs existing near the root. Throughout both lobes are numerous firm fibroid tubercles, ranging in size from a pea to a pin's head. Lower lobe is solidified, in a state of red hepatization, the air cells being filled up with fibrinous plugs.

The right lung contains hardly any air. At the lateral part of the upper lobe is a large dense caseous mass, the size of an orange, with a sharp round contour towards the lungs, and much puckered on the pleural surface. It is very firm, and on section beautifully marbled. At the lower and back part of this lobe the lung presents a very peculiar appearance over an area equal in size to an orange; it is irregular, soft, and spongy, no definite cavity exists, but the tissue at the upper part is soaked with pus, while below there is pus mixed with blood. It looks not unlike the fibrin of blood clot soaked with pus, but on examination proves to be a rapidly breaking down lung tissue, infiltrated with cellular elements. The pleura over it is very thick and fibrous. Nearly the whole of the lower lobe is in a condition of grey induration, being firm, airless, and scattered through it are a few caseous masses.

(*To be continued.*)

Correspondence.

EDINBURGH, May 30th, 1877.

MY DEAR EDITOR, — The recent surmises respecting the movements of Prof. Lister have been verified since the date of my last communication. His telegram announcing his final decision to accept the chair at King's came like a thunderbolt among the men here. Mr. Annandale left by the first train for London, and within twenty-four hours the admirers among the students and graduates in the city of Mr. Watson and Mr. Chiene had petitions in circulation for signature. The three men I have mentioned are the only likely candidates for the chair. The appointment lays with the Home Secretary, so that, of course, the man who wields the most influence will win, and here Watson has undoubtedly long odds in his favor. Besides, he has to recommend him a long term of service in the Infirmary, and the fact that he has lectured on surgery in the College of Surgeons for many years. Annandale has lectured on Clinical Surgery for some time in the Extra-mural school, is the author of a couple of works and some valuable papers on surgical subjects, and is a good operator. Mr. John Chiene, by far the younger of the two, being scarcely yet thirty-five years of age, has much to recommend him. The following extract from a testimonial drawn up in his favor by some of the most prominent of the younger Edinburgh graduates in the kingdom, will give you a fair idea of his position as a candidate: "Although you are comparatively young in years, you have shown such decided ability, and given such rich promise for the future, as to convince us that the University of Edinburgh would have in you a Professor of Clinical Surgery worthy of occupying the chair of Mr. Syme and Mr. Lister. Your whole education eminently fits you for the appointment now vacant. In anatomy you were trained as student and Demonstrator by Mr. Goodsir and Mr. Turner. In surgery you have had the great advantage of having been an Hospital Assistant both to Mr. Syme and Mr. Lister. With the late Professor Syme you acted as Resident

Surgeon for a period of twelve months, and many of us remember how well you fulfilled the duties of that position. As one of the Assistant Surgeons to the Royal Infirmary, you have, on many occasions during Mr. Lister's absence, been called upon to discharge the duties of the Professorship, and you have done so, we believe, with the greatest acceptance both to the University authorities and to the students. You are, what in our opinion, is a matter of no slight importance, a thorough believer in the Antiseptic System of treatment, and you are skilful and experienced in its application. Your knowledge of disease, the skill with which you operate, and the marked success which has attended your operations, show that you possess in an eminent degree all the qualities which make a surgeon. Your success as a teacher has been very remarkable. You began as a surgeon should begin, by teaching anatomy as Demonstrator for four years in the University. You then started as teacher on Surgery and your class, from a small beginning, has in the course of six years grown so rapidly, that during the last Winter session you enrolled over 100 pupils for your systematic course, the largest class in Surgery, we believe, that there has been for many years in the Extra Academical School, &c."

Among those who signed this testimonial are Dr. T. Lauder Brunton of St. Bartholomew's Hospital, London, and Dr. J. Wyllie, the talented pathologist to the Edinburgh Infirmary.

My own convictions are that, no matter how this appointment goes, Chiene is "the coming man." He has youth, energy, and ability on his side, and as far as antiseptic surgery is concerned, Lister could not have a more faithful disciple.

The authorities of King's College Hospital have conceded everything to Mr. Lister, and were evidently bound to have him at any price. They give him a House Surgeon of his own, where there was only one for the whole hospital, and he is to have his wards separate and distinct from those of the other surgeons. While the custom has hitherto been, to divide the fees of the school among all the teachers, his are to be independent; and instead of lecturing once a week, as did Sir W. Fergusson, he proposes lecturing twice. Altogether a special

chair has been provided for him, so that now this little school will have two teachers of clinical surgery, Professors Wood & Lister.

As, I think, I hinted in my last letter, I have seen much to impress me with the antiseptic plan of treatment. In fact, I have seen results that could be obtained in no other way. The following case is an illustration:

A boy, aged thirteen years, fell in front of a heavily laden wagon, the wheel of which passed over the right knee, but before doing so pushed it for some distance before it grinding the limb into the hard pavement. On admission into the Infirmary all the soft parts occupying the outer half of the joint were either carried away or fearfully lacerated. The joint was opened, and dirt ground into the bone, and even the cartilage of the outer condyle. To the unexperienced in antiseptic work there seemed to be no alternative but excision or amputation. Mr. Lister, however, went to work under the spray with a pair of curved scissors, clipped away all the soft parts that were likely to die, scraped or pared away any bone or cartilage containing dirt, rubbed the whole roughly with a coarse nail brush, and lastly applied to the entire surface a carbolic and spirit solution of one to five strength, which, by-the-way, he now uses very rarely. The protective and antiseptic dressing were then applied in his usual way. On the following morning, according to my notes, the temperature was 99⅘°, and the pulse 103. The boy was free from pain, and spoke cheerfully. The outer dressing was removed as the serous discharge had found its way to the edge of the gauze. The temperature never reached 100° till the fourth day, when it was 101⅘°, but this rise was thought to be due to the fact that the patients's bowels had not moved for several days, as after an injection the temperature fell to nearly normal. On the fifth day the inner dressing was removed for the first time. The gap, in dimensions about 4–6 inches, was filled to a level with the surrounding skin with a blood clot of a pale colour, looking firm and evidently undergoing organization. The parts around were entirely free from any inflammatory trouble. There was no redness or swelling to be seen anywhere

in the limb, and except when moved the boy complained of no pain in the joint. There were no elements of putrefaction demonstrable either in the wound or on the dressing. Mr. Lister dipped the protective and deeper dressing in salicylic cream, (made by mixing salicylic acid and carbolic lotion) and put up the limb as before. Two days ago, before the class at the clinical lecture, Mr. Lister removed the deep dresssing which had been left undisturbed for *twenty days*, and the blood clot was found to be firm and covered by as healthy granulations as I ever saw. There was not a vestige of putrefactive odour on the dressing. The boy never had a bad symptom, and of course is bound to do well, although he may in all probability have a stiff knee, owing to the contraction which is almost inevitable during the organization of blood clot.

Mr. Annandale has been performing a number of excisions lately. In excising the hip he makes first an exploratory incision into the joint, mainly to find out the condition of the acetabulum. Should it be only slightly diseased he removes simply the head and neck of the femur with a narrow saw, taking away the trochanter only when the socket is much implicated or when he wants freer drainage. He prefers the straight incision. In knee-joint resection he uses simply a plaster-of-paris splint, at which I was much surprised, as no doubt you will be. In excisions of the ankle he prefers as a rule to remove the entire astragalus, as he has found that the fragment left often becomes carious.

Mr. Chiene has perfomed three operations for the cure of knock-knee with marked success. Instead of sawing through the base of the inner condyle and then breaking it, as Ogston of Aberdeen recommends, he cuts down on the bone, peels back the periosteum, removes with the chisel a wedge-shaped piece of the condyle, and then by a gentle pressure throws the latter upwards, taking care to bend simply (not break) the cartilaginous surface of the bone.

More anon from London.

Yours, very truly,

T. G. R.

The Question of Rest for Women during Menstruation.—By MARY PUTNAM JACOBI, M.D., Professor of Materia Medica in the Woman's Medical College, New York. The Boylston Prize Essay of Harvard University for 1876. New York: G. P. Putnam & Sons; 8vo.; pp. 232.

The members of the Boylston Prize Committee are to be congratulated in having procured such an essay as the one before us in response to their question, "Do women require mental and bodily rest during menstruation?" It seems peculiarly appro priate that one of the sex to whom this question is an all important one should have been the successful competitor, and by the production of such an essay have given additional token —if such was needed—of the fitness of women for the highest kind of mental labour. It is a work which will add greatly to the reputation of its authoress, already well-known as an able and energetic worker in the field of practical medicine.

Passing over the introductory chapter, which is taken up with historical notes and general considerations in regard to the amount of labour performed by women in various countries, the real work of the essay begins with the inquiry as to the proportion of women who suffer pain and inconvenience during menstruation. To obtain the necessary information on this point 1000 circulars were issued, and to these 268 women replied, of whom 35 per cent. declared themselves to have been always completely free from discomfort during menstruation. It was ascertained that the class who never suffered menstrual pain exercised a great deal more than the other class, and also that persons without occupation suffered more than those who were occupied. "As regards "Rest," the data do not suffice to inform us of its influence. We can only assert negatively that in a large proportion of cases it has been quite superfluous."

Menstruation is next considered, and the ovulation theory, "which construes the menstrual hæmorrhage as a subsidiary phenomenon, entirely dependent on the periodical dehiscence of ovules," and the more recent one, as yet without a name, according to which ovulation and the menstrual hæmorrhage

are processes coincident but distinct, the latter being subsidiary, not to changes in the ovary, but in the uterus preparatory to pregnancy, are very fully discussed. Neither are considered quite satisfactory, and the older 'theory of plethora' is adopted; according to which there is "an excess in women of nutritive force and material, which, when not utilized in reproduction, is expended in menstruation." Hence it follows, "on the hypothesis that the menstrual period represents the climax in the development of a surplus of nutritive force and material," that "we should expect to find a rythmic wave of nutrition gradually rising from a minimum point, just after menstruation, to a maximum just before the flow." This introduces us to the experimental part of the essay in which the attempt is made to demonstrate by experiments upon the secretion of urea, temperature, the force of the muscles, and the tension of the arteries, that such a nutrition wave exists. In six instances the daily quantity of urea excreted was estimated for two or three months, with the general result of showing an increase in its excretion during the four days preceding the menstrual flow, about the average at the intermenstrual periods, and a marked decrease after the cessation of the menses. The temperature was found to rise one to eight tenths of a degree in the pre-menstrual week, falling gradually during the flow. The estimates of the variations in muscular force in relation to menstruation are not so satisfactory, being lessened in some and increased in others in the pre-menstrual period. Perhaps the most important of the experiments relate to the variation in arterial tension. This part of the essay is accompanied by eight plates with sphygmographic tracings. It was found that there is an increase in the arterial tension during the week preceding menstruation. The lowest point of vascular tension is reached immediately after the cessation of the flow, and may continue for several days. This "rythmic wave of plenitude and tension of the arterial system, ... which begins at a minimum point, from one to four days after the cessation of menstruation, and gradually rises to a maximum seven or eight days before menstruation," is believed to depend, not on the increased cardiac systole, or on any obstacle

to the free egress of blood from the arteries, but on an increase in the mass of the circulating fluid. Evidence is gathered from these details to show that the menstrual flow is "the simple equivalent of an accumulation effected by a constantly rising wave of nutrition," the circulating fluid increases in quantity, till at length the tension in the system becomes so great that the vessels of the uterine mucous membrane, weakened by fatty degeneration, yield, and hæmorrhage takes place.

Space will not allow of the consideration of the "theory of supplemental nutrition" dealt with in Section V., or of the succeeding one; we can refer only to the chief conclusions, viz., "that there is nothing in the nature of menstruation to imply the necessity, or even the desirability, of rest, for women whose nutrition is really normal." "It remains true, however, that in our existing social conditions, 46 per cent. of women suffer more or less at menstruation; and for a large number of these . . . . humanity dictates that rest from work be afforded whenever practicable."

Report on Adulteration of Food, being Supplement No. III to the Report of Inland Revenue, 1875. Printed by Order of Parliament. Ottawa.

We have received, and read with much pleasure, the above report, the first which has been issued under the new Act. The necessity for such an Act is shown by the fact that of 180 samples submitted to the Public Analysts up to Dec. 31st, 1876, 93, *i.e.* 51½ per cent., were adulterated. A considerable proportion of the adulterated articles were condiments—mustard, pepper, &c., and the additions, as a rule, harmless. Fifty-four analyses of milk were made, and in 34 adulteration detected. This condition of affairs the authorities of the cities of the Dominion should endeavour to remedy by establishing a thorough system of inspection, as is enforced in many continental cities, where, by properly trained men, all the milk undergoes a preliminary inspection on the streets, and any suspicious samples are sent to the Public Analysts for further investigation.

Weekly returns are published, and the announcement in this way of the dealers who are in the habit of adulterating has of itself been found most beneficial. How much can be done is shown by the Parisian returns. In 1871, 44 per cent. of the milk was adulterated; in 1875, only 16 per cent.

Interesting analyses of the various quinine wines manufactured in Montreal are given, of which Campbell's and Lymans, Clare & Co's appear to be the most reliable. Altogether, the report does credit to the Inland Revenue Department and to our Public Analysts

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Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Case of Splenotomy by Billroth.—The fortunate results obtained by Péan in this operation, which has from time to time in the past 300 years been performed, are encouraging. By statistics we learn that of 21 cases 17 recovered; of these, 15 were individuals in whom the spleen had protruded through a wound, and was wholly or in part excised. Of the six persons from whom Quittenbaum, Koeberle, Spencer Wells, Kuchler and Péan removed large hypertrophied spleens, two (Péan's) recovered. Bryant's cases are omitted.

These two successful operations, by the fact of the patients continuing in good health for a long time, do away at a stroke with all theoretical doubts as to the propriety of splenotomy, which has for long needed no physiological justification, and by its success has now removed the pathologico-physiological objection. Among clinical physicians there is no longer any doubt that large splenic tumors of themselves, and without leukæmia, cause death.

In leukæmia we know that, in addition to large spleen and lymphatic tumors, hyperplasia of the bone marrow exists; yet it is a well recognized fact that many cases of hypertrophy of the spleen and lymphatic glands occur with leukæmia. The

extension of our knowledge in this region has, for the time, confused rather than enlightened our understanding of the pathology of leukæmia. The things which were believed to be tolerably certain have again become doubtful.

In Péan's cases it is not recorded whether leukæmia was present or not. Whether splenotomy is more dangerous in individuals with leukæmia than in those without, and whether leukæmia would cease after successful extirpation of the spleen, are questions to be determined not by experiments upon animals, nor reflections in the study, but by a further experience of this operation in individuals whose blood before and after the operation has been accurately examined. Thus leukæmia is not, in the meantime, to be regarded as a contra indication to splenotomy in tolerably fair conditions of health.

The method of operation is not yet definitely settled, so that further communications upon it would be useless; and as it is one which is likely to become more common, I feel all the more bound to put on record a case lately operated upon by me, and fatal through an unfortunate accident, which can, probably, be hereafter avoided:

Mrs. C. A., æt. 45, the mother of nine children, admitted January 20, 1877, never had ague, nor does it prevail in her native place. She has noticed for the past two years a hard swelling on the left side, which has slowly increased in spite of remedies. Until the past summer she could do hard work, but since then has got weaker and weaker, thin, and the belly has become very ponderous.

Present Condition.—Woman of average size, strongly built but thin, of a quiet disposition, complexion pale, but she does not look ill. Mucous membranes moderately red. Abdomen swollen. The result of repeated examinations gave:—Enormously large hard spleen, slightly enlarged liver, moderate ascites; remaining organs healthy. Great leukæmia, proportion of red corpuscles to the colourless, after numerous countings, 5:1. Appetite good; pulse 60, moderately strong; general condition fair. She soon made up her mind to the operation, being assisted thereby by the fact that in a neighbouring bed a woman

had been operated upon by abdominal section for fibroids of the uterus, and, after years of illness, completely cured. The operation was performed on January 29th, all the usual precautions in such a case having been taken. Chloroform was administered and an incision made, extending to a handsbreath above and the same distance below the navel. Abdominal walls were thin, and the small vessels, which bled freely, were ligatured with catgut. On opening the peritoneum a moderate quantity of ascitic fluid escaped, and the lower and inner border of the enormous spleen, together with a portion of the liver border, appeared in the wound. The omentum and intestines lay behind the spleen, and these parts were held back with large flat sponges. The spleen, which was nowhere attached, was slowly drawn from above through the wound, and the pancreas, with the lig. gastro-splen., pulled somewhat forward. The ligament was tied in six pieces, and each piece tied twice, so that in their division no blood flowed from the spleen. (From the results of operations upon animals, this practice is much esteemed.) In the division of the last piece, hæmorrhage occurred from an artery which had not been included; it was stopped with the finger, and afterwards tied. The divided surface then presented no bleeding points, and ligatures were cut short. By means of sponges attached to long forceps the rest of the slightly blood-tinged ascitic fluid was removed. Two long drainage tubes were inserted into the lower part of the wound, in order to carry off any exudation which might take place. The wound was closed by thirteen deep and four superficial sutures, and a compress applied. The operation lasted three quarters of an hour, and was conducted without a hitch; all present regarding it as a relatively simple operation—more so than most ovariotomies. The patient came very slowly out of the narcosis, and spoke with me quietly half an hour afterwards, when I left the hospital. On my return in two hours to enquire, I found my assistant busy in compressing the abdomen, out of the partially opened cavity of which the blood gushed with considerable force. The patient was in her last gasp. Shortly before she wished to go to stool, and on the bed-pan had passed, with

considerable straining, a few hard masses (she had had on the previous day, and also an hour before the operation, copious evacuations). Suddenly she became deadly pale, and sank back. The assistants, on coming from the next room, found her pulseless, and on removing the compress blood flowed out from between the stitches of the wound. The aorta was compressed, and the wound opened, in the hope of finding the bleeding spot, but it was found impossible to master the hæmorrhage. There could be no doubt that in the straining a ligature had slipped. At the post-mortem between two and three pounds of blood-clots were found in the abdomen. On injecting water into the splenic artery it flowed out of a small branch situated between the third and fourth ligature, and from several branches at the same point water escaped when injected into the splenic vein. The loosened ligature was not found. The increased blood pressure in the splenic vein during the straining is believed to have caused the central ligature, situated close to the pancreas, to slip. It is advised, in the future, to include a small bit of pancreas with this ligature.

The excised organ weighed between six and seven pounds and was firm.—*Wiener Med. Wochenscrift, No.* 5, 1877.

Diagnosis of Ovarian Disease.—A rtoh, essay lately published by Prof. GUIDO BACCELLI, of Rome, deals with the percussion of the ilium as an aid to the diagnosis (1) of simple ovaritis, (2) of a commencing ovarian tumour, and (3) of the sides of origin (right or left) of large ovarian tumour whose early stages are unknown. Percussion of the diaphysis of the ilium, according to the author, gives rise to acute pain in simple ovaritis unaccompanied by diffuse peritoneal inflammation. An ovarian tumour gives rise to marked dulness on the side on which is situated, while there is clear tympanic resonance on the side of the healthy ovary. Thus, if the left ovary be enlarged, there is dulness over the left ilium, and resonance over the right; and *vice versâ*. The rules to be adopted in percussing are as follows: The patient must lie on her side, with the

legs drawn up, and the thigh which is uppermost adducted and pressed toward the abdomen, so as to place that part of the diaphysis of the ilium which lies below the centre of the insertion of the gluteus medius muscle in the position best adapted for percussion. The exact point of the external surface of the ilium to be percussed is a little below the centre of a straight line drawn from the posterior-superior border of the iliac crest to the upper edge of the acetabulum. Taking the average length of this line as ten centimetres, the point to be percussed lies between five and six centimetres below the posterior edge of the crista ilii. It is necessary to percuss forcibly, and it is better to use a plexímeter and a hammer than the fingers only. The two sides must of course be percussed at identical spots. The practical value of this method is illustrated in the essay before us by two or three striking cases, in which it was most successfully applied to clinch a doubtful diagnosis; and we are assured by Professor Baccelli that these are not the only ones in which it has stood him in good stead.—*Med. Times and Gaz.*, April 14, 1877.

Means of arresting Epileptic Attacks.—M. NOTHNAGEL gives (*Berlin. klin. Wochenschift*, No. 41 and 46, 1876) the case of a workman subject to attacks of epilepsy, in whom each fit was preceded by an aura, occuring usually from a quarter of an hour to half an hour before the fit. The aura was characterized by a peculiar sensation of constriction, the seat and point of departure of which was the epigastrium. The sensation seemed to rise in the throat, and to compel the patient to breathe deeply and rapidly. Then it seemed to descend and after recurring several times, finally affected the head, which was turned to the right, when the patient immediately became insensible. He had discovered for himself that on putting a quantity of salt into his mouth, as soon as the aura commenced, he could ward off the attack; a sensation of burning was experienced in the œsophagus, and the affection re-descended; a teaspoonful was insufficient; a handful was required. Brown-Séquard arrested, it is well known, attacks of epilepsy in

his epileptic Guinea-pigs by turning their heads briskly to the side of the body opposite to that of the medullary lesion; and it would appear that a strong peripheric stimulus will serve the same purpose, as sharp pinching of the skin in the epileptic zone or elsewhere, or the application of a tight ligature to the fingers. Is such cases the effect is probably due to simple reflex inhibitory influence. Prof. L. Meyer remarking on these cases, states several years ago, in fact as long ago as 1855, Prof. Nothnagel observed that sulphate of quinine adminstered a certain time before an epileptic attack was very effective in preventing its occurrence, and in these days, when intravenous or subcutaneous injection can be so readily employed, this means would appear to be worthy to further investigation. The quantity administered by Prof. Nothnagel was from fifteen to forty-five grains.—*Practitioner*, April 1877.

Treatment of Wounds.—The rapid healing of wounds without any, or but very slight fever, and without any or but little secretion of pus; and how to prevent the occurrence of traumatic diseases—these problems have given rise to much discussion, and yet they cannot be considered as satisfactorily solved.

Lister has accomplished a great deal. Nussbaum, Volkmann, Thiersch and many others, have had very favorable results from Lister's method. They all attempt to prove, from their experiments, the superiority of Lister's antiseptic method over the common open treatment of wounds.

The advantages claimed for Lister's method are:

1st. The protection of wounds from all untoward influences, therefore preventing traumatic diseases.

2nd. The more rapid healing of wounds, either *per primam intentionem*, without fever, or rapid healing, with very slight fever and but little suppuration.

After Volkmann, Thiersch and Nussbaum made their report to the German Congress of Surgeons of the year 1876, recommending Lister's antiseptic treatment, Burrow reported on the

success his father and himself have had in the open treatment of wounds.

The hospital under their supervision contained 16 beds; ventilation imperfect; the patients of the poorest class; several amputations and other operations were performed by students. Under these circumstances, their report shows that out of 123 operations but 7 per cent proved fatal. While Lister's shows a mortality of 17 per cent., Volkmann, 18 per cent., and Thiersch, 23 per cent.

The authors who are in favor of Lister's method differ in their opinions as to its protective power. Nussbaum looks upon it as a prophylactic agent against hospital gangrene rather than against pyæmia. Volkmann does not think that Lister's method will protect the patient entirely from traumatic diseases, particularly not from erysipelas; he, however, believes that these diseases will decrease in frequency and severity under its use. Thiersch believes that Lister's method is a prophylactic against pyæmia.

For the open treatment of wounds, as practised formerly, well-ventilated apartments were required, the greatest cleanliness was necessary, and experienced corps of assistants and nurses was indispensable. The constant supervision of the surgeon was also required. Any of these conditions failing, the treatment was not a success.

In the technic of operative surgery decided progress has been made—improvements that were essential for the open treatment. We have the catgut ligature which causes suppuration, and if the wound is closed, will be absorbed; anæsthetics and Esmarch's bandage allow the surgeon to prepare the wounded surfaces as he pleases.

A close study of Lister's method shows that the largest wounds, if properly attended to, can heal by first intention. Considerable experience is required to properly apply the bandages so as to obtain favorable results. To fully carry out the directions given by Lister would require skilled assistants and costly bandages, and if not carried out strictly according to directions, our labor will be for naught. For a country surgeon, it would be almost impossible to make use of this method.

Prof. D. has his doubts as to whether the antiseptic measures, as laid down by Lister are at all necessary.

We know that in healthy individuals a wound will heal by first intention, if the edges of the wound are brought into close contact and held there; and that if the person is unhealthy, his blood impoverished, a similar wound will not heal by first intention, owing to a want of plasticity of the exudation between the surfaces.

A wound in a healthy person can be healed by first intention if the following conditions are fulfilled:

1st. To give the surfaces of the wound such a form that they can be brought in the closest contact.

This can be easily accomplished in operations of the extremities by using anæsthetics and Esmarch's bandage.

2nd. To use a ligature that will be absorbed and cause no suppuration.

3rd. To cause the wounded surfaces to secrete copious plastic exudation. This can be accomplished by applying a 4 to 8 per cent. solution of chloride of zinc to the surfaces.

When there is no longer any danger from hemorrhage, to bring the opposite surfaces in close contact.

5th. When it is impossible to bring the surfaces in close contact, to allow a free escape to any pus that may be formed. This we can do by using the drainage tube.

6th. To prevent the dressing, after being impregnated with the secretion of the wound, from adhering to the skin, because, in removing them, we may disturb the parts, by partly tearing open the wound. After the wound has been treated as above directed, a piece of waxed paper is placed over it, openings being made in the paper for drainage tubes, if any are used.

To cause the surfaces to come in closest contact, cotton is put over the surfaces of the wounds, and through adhesive plaster and bandages, the necessary compression is made. The cotton being elastic, there is no great danger of making too severe pressure.

This method was tried in cold abscesses, ulcerations in the sheaths of tendons and hydrocele, with the best of results.

The results have been so gratifying as to prove that Lister's good results are not due to the antiseptic measures adopted, but to the close adaptation of the surfaces, to the exciting of inflammatory exudations and to the free escape of pus. Dumreicher, therefore, cannot accept the doctrine of Lister, maintaining that the favorable course of all wounds treated according to his method and the absence of all traumatic diseases are due to his antiseptic measures.

Stich and Panum, by their experiments on animals, proved that pyæmia and septicæmia could only be produced by direct infusion of the poison into the veins. Burrow's statistics show that by cleanliness, poisoning of wounds can be prevented. During the operation, the escape of blood from the veins prevents the introduction of poison; after the operation, the air, which carries the septic germs, is excluded by the close union of the edges, and the drainage tubes are rendered impervious to air by closing the external end.

D. considers it a rather one-side view, which claims that traumatic diseases are produced mostly by external influences, air, etc.; he thinks that the individuality of the person, his state of health, the condition of his blood. etc., etc., are very important factors.— *Prof. Dumreicher, Wien. Med. Wochenschrift, Chicago Med. Journal and Examiner.*

Turpentine in Sciatica.—At a meeting of the Medical Society of Edinburgh, Dr. Jamieson read a paper on the uses of the oil of turpentine in sciatica. He regarded cases of sciatica as referable to three classes, viz., 1. Those cases where it was due to peripheral irritation of the sacral plexus, generally in branches near the genital organs; 2. those cases occurring at the age of tissue degeneration; 3. Those cases dependent on a specific poison, either gouty, syphilitic, etc. In cases due to the cause given under the second head, he had great success with oil of turpentine, viz., in ten out of eleven a cure was effected. The turpentine required to be given in two-drachm doses, with castor oil, mucilage, and cinnamon water, and re-

peated three or four times. Dr. Young had used turpentine in cases like Dr. Jamieson. In half-drachm and drachm doses, he had found it of no effect. But he would again try it in the way recommended in the paper. The best treatment, so far as he knew, was iodide of potassium pushed to iodism. This was often very effectual in relieving pain. He had got good results—the best results indeed—by the use of acupuncture. In every case, of course, it was important to remember that they had to consider the constitutional state of the patient. In the case of a lady, he had found turpentine in drachm doses of no effect. Benefit was obtained from iodide of potassium in doses varying from four to six grains thrice daily; and, after a three months' stay in England, the pain never returned. He could not say whether the iodide of potassium or change of air had been the cause of cure, but probably both had been of advantage. Dr. C. Muirhead, during the last week or two, had in his wards at the Infirmary three cases of sciatica. In the first case, two drachms of turpentine were administered every second night on three occasions, but no castor oil was given along with it. No effect followed. In Glasgow, where the patient had been previously, almost every remedy except turpentine had been tried. He next injected chloroform in five-minim doses, thus relieving the pain almost immediately, but producing a feeling of numbness not yet gone. He had also in this case used iodide of potassium in twenty-grain doses thrice daily, on the ground that there might have been thickening of the nerve-sheath at the sciatic foramen. The use of acupuncture needles gave him most relief; but he believed the case was one where the sciatica would continue during the man's life. In the second case, a blister was applied over the tendo-Achillis. He had found it of most advantage when applied in this situation, as it was nearer the branches of the nerve than when applied over the gluteus maximus. In the third case, he had used the needles and iodide of potassium with considerable benefit. He wished to allude to the first case, where he had used turpentine. Perhaps, the want of success was due to the non-employment of castor oil along with it.—*Med. & Surg. Reporter.*

Treatment of Vaso-paralytic Cachectic Diarrhœa by Chlorate of Potash.—

By C. BONFIGLI (Arch. Ital. per le Malasse Nerv. Milano, 1875).

By vaso-paralytic cachectic diarrhœa is meant the diarrhœa which cachectic patients suffering from nervous disorders are subject to. The motions are frequent and copious, serous in character, and the diarrhœa generally resists the ordinary methods of treatment by astringents, narcotics, &c. There is neither pain on pressure over the bowels, nor is the tongue coated, and after death the only change that is found is a reddening of the mucous membrane of the bowels. It is called vaso-paralytic because the affection is supposed to be due to paralysis of the vaso-motor nerves of the intestinal mucous membrane, due to defective nerve activity through disease of the neighbouring nerve centres, or due to a participation of the whole nervous system in the general cachexia. This diarrhœa has been frequently observed in animals whose cerebellum has been removed. It is also, according to Bonfigli, common in Italian lunatic asylums, and frequently ends in death; in most cases the best known remedies fail. According to Sasse, chlorate of potash causes contraction of the muscular wall of the blood vessels, and it occurred to Bonfigli that it would be useful in this form of diarrhœa. He tried it with the following results:

(1.) Chlorate of potash has, without doubt, a favourable action in vaso-paralytic diarrhœa, as improvement is often noticed from the first day of the employment of this remedy.

(2.) In order that the diarrhœa may be completely removed it is necessary that the remedy should be continued for several days, and given in increasing doses.

(3.) When the remedy is discontinued too soon after improvement, the bad symptoms return; but on re-employing the chlorate of potash, the case proceeds favourably.

(4.) In the more severe cases of this cachexia that are accompanied by great nervous depression, the chlorate of potash acts much more slowly, the frequency and quantity of the stools are diminished, but the diarrhœa does not completely dis-

appear, and easily becomes worse. In such cases, larger doses of the remedy must be given. It is supposed that here the vaso motor paralysis exists in a high degree, or that some organic change in the walls of the blood-vessels has taken place (as fatty or amyloid degeneration); or, again, that changes have taken place in the mucous membrane (as extravasation, ulceration, &c.,) which need an energetic and long-continued employment of the chlorate of potash to bring about a return to the normal condition.

(5.) Chlorate of potash is of little or no use when the diarrhœa is caused by an active process in the mucous membrane of the intestinal canal, as enteritis catarrhalis, &c.

(6.) It follows, by analogy, that chlorate of potash is useful in the diarrhœa of old age, cholera, and the serous diarrhœa which is common in hot countries.

(7.) The dose of this remedy is 2-10 grmm. in 24 hours (30-150 grs.), according to the severity of the case.—(Quoted in *Schmidt's Jahrbücher*, Bd. 173, No. 2, 1877.)

On Hydræmia and Hydræmic Œdema.—Professor JULIUS COHNHEIM and Herr LUDWIG LICHTHEIM have made (Virchow's *Archiv*, January, 1877) a very interesting series of experiments showing that they were unable to produce œdema of the subcutaneous connective tissue by any quantity of fluid injected into the vessels; the fluids varied from distilled water, salt and water, sugar solution, to blood-serum, albumen solution, and pure blood; they also thinned the blood of some animals without adding to its total quantity of fluid. In the last case the result was quite negative as far as œdema was concerned; in all the other cases the effect were to cause great transudation into the intestines and the cavity of the abdomen, to increase the urine greatly, which was clear and pale; to cause enormous secretion from all glands and from mucous surfaces, the glands and the mucous membranes becoming swollen; the flow from the thoracic duct was greatly increased, but the lymph vessels of the extremities showed scarcely any more than

their normal quantity; but that of the lymphatics of the neck was increased, though not so much as in the thoracic duct. The injection of fluid had only a temporary influence on the blood pressure in both veins and arteries, but caused a quickening of the circulation of longer duration.

They observed that although hydræmia *per se* appeared unable to produce œdema of the subcutaneous connective tissue, the dogs rendered artificially hydræmic were especially prone to œdema from slight causes, such as painting with iodine, or exposure of their shaved skin to the sun's rays; ligature of the femoral vein scarcely ever caused œdema of the foot in healthy dogs, but under these pathological conditions it very frequently ensued.

They infer from this that changes in the vessels are necessary coexisting factors with hydræmia in the production of dropsy of the subcutaneous connective tissue; and they instance scarlatinal dropsy, in which an alteration in the vessels of the skin coincides with a hydræmia produced by the kidney affection, while in some cases the œdema occurs without any kidney-mischief, scarlatinal dropsy albuminuria. They believe that the œdema occurring in phthisis, carcinoma, and other cachectic diseases, supervenes when the walls of the vessels have undergone changes corresponding to the general atrophy of the tissues from the malnutrition of the individual.—*Lond. Med. Record.*

Subcutaneous Injection of Ether in collapse.—The following cases, in which hypodermic injection of ether was employed, occurred in practice of M. VERNEUIL at La Pitié. A young boy, on whom M. Verneuil had operated for naso-pharyngeal polypus, the operation being a long and difficult one, suffered a considerable loss of blood. The child, enfeebled by successive hemorrhages, fell into a state of severe collapse, his temperature being below 95 deg. His state was so critical that M. Verneuil was asked by his pupils to perform transfusion Not being a great upholder of this operation, however, he determined to try hypodermic injections of ether, fifteen drops at a time. Several injections having been made

in the course of the day, the temperature was seen to rise rapidly; and the following days, the same treatment being continued, the temperature promptly returned to the normal. The patient recovered. Another case was one of strangulated hernia. The temperature had fallen to about 95 deg. and, in order that the operation might not be performed under such unfavourable conditions, M. Verneuil advised subcutaneous injections of ether in a similar manner. Under its influence, the temperature the same day rose to 97 deg., and made the operation possible.

With regard to the method of using ether, and the dose, M. Verneuil advises the surgeon to go about it with the thermometer in one hand and the syringe in the other. He might commence, for instance, with fifteen drops, and repeat it in an hour, taking care to ascertain the temperature. If this be not sufficient, the injection may be made as many times as is necessary, the ether being apparently well borne.—*Monthly Abstract*, June 15, 1877.

Erythema Exudativum Papulatinium. A student at 24 was affected with a papular exanthem, which at first resembled the initial (the eruption of small-pox in its initial stage) and afterwards presented the appearance of syphilis maculosa. The eruption has recurred every two months for the last two years; it was present on the face, neck, back, exterior surfaces of the extremities and soles of the feet—in the latter situation it was painful on pressure. The eruption was also very abundant on the prepuce and glans penis. The last attack came on after a severe attack of inflammation of the mucous membrane of the throat, which was believed to be of an erysipelatous character. This circumstance, together with the fact that the patient possessed a highly sensitive skin, would seem to confirm Lewin's theory that erythema exudativum is a vaso-motor neurosis.

Three other cases are recorded as having occurred in young persons whose family history showed a strong tendency to tuber-

culosis, and may be cited in support of Uffelman's statement that the form of erythema nodosum, which is apt to be followed by tuberculosis, is met with generally in such persons. The eruption was identical with that of erythema nodosum, and faded gradually without other change of color and without exfoliation. The subjective symptoms were very slight, but there was well-marked fever and great depression of the vital powers and pallor of the countenance. The disease occurs in delicate and anæmic young people with soft, fine skins, and is most common in the female sex. It always tends to recovery, but is usually followed by tuberculosis.

Of the three cases described, the first was a girl five years of age. The attack commenced with fever; in 24 hours' time the eruption made its appearance; about the fourth day the fever began to subside, and had wholly disappeared by the end of the ninth day; convalescence lasted two months. The second case was a peasant woman at 20. The third a boy nine years old. In both of these there was prodromal fever, and fever during the first few days of the eruption; convalescence was tedious. In no instance was there any enlargement of the spleen or affection of the organs of the thorax. The real nature of the disease must remain for the present a matter of doubt, there being no anatomical proof of Bohn's theory that it has to do with embolism, though some of the symptoms (repeated attacks of chilliness) seem to favour that view.—*Centralblatt fur d. Med. Wissenschrift*, 27 *Jan.*, 1877.

Retention of Urine in Old Men.—The generally accepted belief that enlargement of the middle lobe of the prostate prevents the voidance of urine by acting as a valve, has been challenged by W. Burch, who seeks to explain the difficulty on purely hydrostatic principles, basing his statements upon the examination of a number of frozen preparations. During childhood the sphincter vesicæ is situated quite close to the point where the force which opens the inner orifice of the urethra takes effect; for this reason very little of the propulsive power is lost, and the urine can be discharged with considerable force.

At puberty the sphincter is situated relatively lower down, and the urethral orifice must be opened more widely before the urine can escape; a part of the propulsive power is thus lost, and the stream is somewhat less forcible. When enlargement of the prostate takes place the internal orifice is found to be situated in the centre of an elevation, at the base of which, especially posteriorly, there are, more or less, deep depressions or sacculi formed. Under these circumstances, when the bladder contracts the pressure is brought to bear not only on the inner orifice but also on the sides of the prominence which surrounds it, thus aiding the sphincter muscle in its resistance. If this lateral pressure predominates, the use of a catheter becomes indispensable.

The same thing may happen without any enlargement of the prostate, if the walls of the bladder yield posteriorly; as soon as symptoms indicative of such a condition appear, the catheter should be used frequently in order to prevent the fossa or depression from increasing.—*W. Busch Arch. fur Klin. Chirurg.* XX., S. 416.

Salicylate of Soda as an Antipyretic.—M. Jaccoud speaks favourably of salicylate of soda as an antipyretic in typhoid fever. This substance contains 83 per cent. of salicylic acid, and is soluble in water. A few drops of chloroform combined with it will effectually do away with the nausea and vomiting which in some patients it is likely to produce. To produce good effects large doses must be given (as large as eight grammes—3ii.) in mucilage, taken in two portions, at an interval of a quarter of an hour, between seven and eight o'clock in the evening. The fall of temperature commences half an hour after the exibition of the remedy, varying from one degree to a degree and a half (centigrade); it can fall as low as two degrees and a half in five hours. The temperature can be kept down by a repetition of small doses. Salicylate of soda causes considerable changes in the urine: from the first dose its quantity is diminished, it becomes dense and loaded with uric acid and urates—in other words, the solids are materially increased.

Thus, in favouring the elimination of nitrogenous material retained in the system by febrile combustion, it resembles benzoic acid. To avoid this excessive density of the urine and the danger of catarrhal nephritis, the patient should drink two or three pints of fluid in the 24 hours after its administration. Salicylate of soda is slowly eliminated. Traces can be found in the urine 48 hours after its administration. Its presence in the urine can be demonstrated in the following manner:—Dilute the urine with water, then add a few drops of a solution of the perchloride of iron. A precipitate forms, which, seen by transmitted light, is of a deep-black colour. Normal urine gives a whitish precipitate with the same re-agent.

The employment of salicylate of soda is contraindicated in cases of cardiac debility, since it lessens the force and frequency of the pulse.—*Le Mouvement Medical, March* 24. 1877.

Cold Baths in the Feverish Diseases of Children.—Dr. Mayer, at the close of a former article, remarked that he did not only employ cold baths for children of seven or eight months of age suffering from typhus and typhoid accompanied by pneumonia, but also for children of two or three months suffering from disordered digestion with high temperature. He used cold baths of a temperature of 83¾° Fh. with success. The baths were commenced at a temperature of 92¾° Fh., which was reduced to 86° and 79½ Fh. Mayer treated a case of erysipelas migrans in a child *three weeks* old by cold baths alone. The baths used were of a temperature of 90½°—92¾° ; how often, he does not say. In ten days the temperature was normal, and the child had completely recovered. Dr. Mayer especially recommends this form of treatment in the diarrhœa and vomiting of children with high fever. In spite of warm drinks, &c., the hands and feet become cold, and collapse rapidly ensues. Here he gives baths of a temperature of 92¾° Fh., cooled to 86° Fh., every three hours, and as often as the temperature reaches 103° Fh. In addition, he gives every hour a teaspoonful of Tokay wine.—(Quoted in *Schmidt's Jahrbücher*, Bd. 173, No. 2, 1877.)

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1877.

COLLEGE OF PHYSICIANS & SURGEONS, P. Q.

The triennial meeting of the College of Physicians and Surgeons of the Province of Quebec will be held in the town of Three Rivers, on Wednesday the 11th July, instant, for the purpose of electing a Board of Governors for the ensuing three years. We hope to see a full meeting, and that all the various districts and cities will be well represented. It must be borne in mind that no member of the profession is eligible for election to the Governing Board unless, nor until, he shall have been four years a member of the College. There is no getting over this clause in the act: "The said Board of Governors of the College of Physicians and Surgeons shall have the power—To fix the period of probation which persons must undergo before being eligible for election as Governors of the College, which period shall not be less than four years,"—or, in other words, the Board of Governors have the power of fixing the period, but it must not be less than four years. It has been stated that persons becoming members, who have been licentiates for four years are eligible for election, this is neither in the spirit nor the wording of the act. The College of Physicians and Surgeons of Lower Canada was not a close corporation, all Licentiates of

good character, and of four years' standing, were eligible for election as members of the College on the payment of $10. In lieu of the $10 it was deemed advisable to admit all members of the profession by legislative enactment, but as a saving clause in order that the affairs of the College should be properly administered, it was enacted that no member should be eligible for election as a Governor of the new College until after a probationary period of four years. This is in verity the read ing of the act, and no other construction can, in our opinion, be put upon it. All the members of the Profession are constituted by the act members of the College, but they do not become members of the College until they have registered under the new act, and have paid their annual contribution. All the old members of the College which was, are required to pay up their back dues, that is their annual contributions for the years that have passed since the last triennial election. This has been done in every instance, and those old members, moreover have paid the registration fee. It would be manifestly unjust to admit all members who have been made so by the act as eligible for election as Governors until they had fulfilled the probationary period constituted under the act.

This we take to be the equitable reading of the act, the members of the old college surrendered vested rights, but in so doing received what they considered an equivalent. If the former state of things is to be entirely obliterated, and that we are all to be placed on the same footing, then indeed must the moneys paid in to the treasury by the old members be refunded and all contributions which have been in equity paid be returned. The cities of Quebec and Montreal are each entitled to eight members on the Governing Board, but the four colleges have the privilege of nominating two delegates from each of their faculties. There are three schools in the City of Montreal, and it therefore follows that two members only can be selected from the profession of our city outside of the schools. In the case of the city of Quebec, six members will have to be elected from the profession, the Laval University having the right to send two delegates from its Medical Faculty.

REGULAR MEDICINE AND HOMŒOPATHY.

Dr. Richardson publishes in the *Lancet* a letter from Dr. Geo. Wyld, one of the most prominent of the practitioners calling themselves Homœopathists, in London. It insists that it has become the almost universal custom amongst them to treat disease by contraries as well as by similars—that the auxiliaries of direct treatment are also constantly availed of by them—and finally that in the matter of dosage, the infinitesimal proceeding is practically abandoned. On the strength of these representations it requests Dr. R. to bring the matter before influential members of the profession with a view to the possible union of the Homœopathic Schism with the great body of the Profession. Dr. R. considers that these important admissions should command "a candid and just appreciation." One could almost fancy that if all called Homœopathists would accept the views of Dr. Wyld, a basis of admission for them might be formed, but we fear that he is a very exceptional man in the schism as regards candour and straightforwardness, and that the majority are much too ready to stand by what he (justly) calls "the often extravagant and incorrect" statements of Hahnemann. We happen to have the personal acquaintance of Dr. Wyld, and can fully endorse Dr. Richardson's opinion of him as "a gentleman of extended knowledge, good taste and truthful nature." It must be that his now acknowledged views will carry weight with his brethren, and it will be interesting to see how they will take his overtures to the general profession.

PERSONAL.

Dr. Edouard Robillard of this city has returned home after an absence of several months which he spent in Europe visiting the various hospitals of London, Paris, Vienna and Berlin. We understand that Dr. Robillard devoted much of his time while abroad to the study of diseases peculiar to women. In a recent number of the *Frans Medical* we observed that Dr. Robillard was elected a Corresponding Member of the Clinical Society of Paris.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

MAY 26TH, 1877.

The President, Dr. G. E. Fenwick, occupied the chair. There being a great deal of general business before the meeting, no paper was read.

Dr. Osler exhibited the following interesting pathological specimens: A blood-cast of a ureter which had been passed by the urethra, causing great horror to the man from its resemblance to a worm. It was nine inches in length, dark-reddish-brown in colour, and wrinkled. The passage of it had been preceded by symptoms of renal colic. A specimen of extensive diphtheritic disease of the larynx, from a patient who had died in the Montreal General Hospital under the care of Dr. Ross.

Dr. Ross gave an account of this case, in which there were some interesting circumstances. The patient was an adult, upon whom, a few weeks before, an operation for excision of part of the tarsus had been performed. He was very much run down, and hectic. He lay in a bed opposite to that of a man with a fistula in ano, which had been operated upon at his own house. There was diphtheria in this man's family, for which reason and on account of an unhealthy condition of the wound, supposed to be diphtheritic, he came to hospital. There was a grey slough in the bottom of the wound, which disappeared entirely in two days under an application of a lotion of chloral hydrate. Dr. Ross does not think that this wound was diphtheritic, and looks upon the diphtheria of the other case as a coincidence and not a case of direct contagion If the wound was diphtheritic, and this was a case of direct contagion, he thinks that diphtheria must be much more contagious than it is generally supposed.

Specimens of coarse and miliary aneurisms of the vessels of the brain, from a patient who had had an apoplectic attack four years ago, and since which time had been epileptic. Latterly, symptoms of softening of the brain had developed. An apoplectic cyst was found external to the left corpus striatum, and

on the small arterioles on its wall and in the neighbouring corpus striatum numerous small miliary aneurisms were found. Two large ones, the size of peas, existed on the vessels of the circle of Willis.

Two specimens of prostatic disease. One, exhibited for Dr. Malloch, of Hamilton, in which the third lobe of the prostate projected from behind the orifice of the urethra, almost completely closing it. The ureters and pelvis of the kidneys were considerably dilated The other was from a case of stone in the bladder, of Dr. Fenwick's, and presented a number of outgrowths from the prostate surrounding and narrowing the urethral orifice. One of them, springing from the left side, was pedunculated, and fitted like a ball-valve into the orifice of the urethra.

A kidney from the same subject as the larynx came, which consisted of a mass of cysts full of caseous pus, evidently tubercular in character.

Dr. Trenholme narrated a case which occurred in his practice. One year ago he had removed the left eyeball for what he thought was malignant disease. Lately the patient returned to him with a growth on the top of the head, situated on the parietal bone of the side on which the diseased eye had been, one inch from the coronal suture. It had no appearance of being malignant. It was painless, and not adherent to the integument. In attempting to enucleate it with a director, he found that the growth was protruding through the bone. He closed the wound and left it. He thought that what appeared to be the cyst was the dura mater. The growth in the eyeball was dark in color.

Dr. Osler spoke of a case, of which this reminded him, reported in Knapp's work on Intraocular Growths. It was a glioma of the eyeball, which was removed and recurred along the dura mater.

J. D. CLINE, B.A., M.D.,
Secretary.

Medical Items and News.

The most recent treatment of diphtheria is one recommended by a writer in the "Deutsch Archiv. f. Klin. Medicin," who advises the application of a galvano-caustic to the patches on the pharynx.

A case of poisoning with salicylate of soda is recorded in the same journal. A patient with phthisis and pleurisy, took by mistake 230. grs. The symptoms were at first loss of consciousness with occasional delirium, vomiting and dyspnœa, the respiration being unusually loud. After twelve hours consciousness returned, and thirst and difficulty of hearing were complained of. He recovered in two days, and the large dose appeared to have a very beneficial effect upon the pleuritic effusion.

Abortive treatment of whooping cough with amyl nitrite is strongly recommended by Dr. Sawarowsky. (St. Petersburg Med. Wochenschr.) A few drops of the amyl nitrite with a drachm of chloroform are placed in a bottle, and inhaled several times a day directly from it. For three days 1-12 gr. of argent. cyanat is given every two hours.

Trendelenburg of Berlin, in a case of hydrocele which had been treated in vain with Iodine injections and compression, made a small incision and put in a drainage tube, by which a complete cure was effected, the surfaces of the sac uniting together. He advises a small incision, and a short drainage tube, through which carbolic acid may be injected if necessary. An antiseptic bandage is also applied.

The method of treating tape-worm by Prof. Mosler of Griefswald is as follows: The day before the cure a dose of castor oil is given and injections in order to thoroughly clear the bowels, and the diet is restricted to salt food, broths, &c. The next morning the following pills are given within two hours: Extract granati spirit. grs. 40. m. f. pill nr. 30. An hour after taking the last 10 pills the patient get a dose of castor oil, and then every hour or two an injection of a couple of pints of warm water until the worm is expelled. It is stated to be a most successful method.

The medical grist mills of the United States have turned out this year 1,442 doctors; of these 198 are from Jefferson Medical College, 157 from the University of New York, and 145 from Bellevue Hospital Medical College.

The personal estate of the late Sir William Fergusson was sworn under £30,000.

Personal.

C. N. Stevenson, M.D., C.M., (76.) has commenced practice in L'Orignal.

A. F. Ritchie, B.A., M.D., ((75) has obtained (by exam.) one of the Resident Physicianships at the Brompton Hospital for Consumption.

Alex. Monro, M.D., L.R.C.P.,L. ('76), R. Macdonnell, M.D., M.R.C.S., ('76), and G. E. Armstrong, M.D., ('77) have commenced practice in Montreal.

The following gentlemen of the class of '77 have proceeded to the Edinburgh and London Schools to pursue their studies. T. S. T. Smellie, M.A., C. L. Cotton, Alex. C. Fraser, Henry C. Greaves, William K. Law. Messrs. Brodie and Miner intend going over in time for the winter session.

Casey A. Wood, C. M., M. D., ('77, Bishops), has been appointed to the chair of chemistry in the University of Bishop's College.

Thos. G. Hockridge, M.D., C.M., ('74) has passed the examination for the License of the Apothecaries' Society, London.

Dr. G. W. Major has gone to Europe, where he intends to make a prolonged visit.

Ch. Murray, M.D., ('76), has passed the Primary Examinations of the Royal College of Surgeons.

Duncan Fraser, M.B., Toronto, has obtained the diploma of the same corporation.

CANADA
MEDICAL & SURGICAL JOURNAL

Original Communications.

RECENT DISCOVERIES
IN THE
PHYSIOLOGY OF THE RETINA.

BY
F. Buller, M. D., M.R.C.S., Eng.

The commonly accepted belief that the healthy retina of vertebrate animals is, during life, a perfectly colourless and transparent membrane, has been completely upset by the recent researches of Boll.* From these it appears that the external portions of the rods and cones of most vertebrates, and the corresponding structures of the invertebrata, are, during life, of a vivid red colour, which colour rapidly fades and disappears after death if the retina is exposed to ordinary white light. Examined microscopically, the great majority of the rods present individually the characteristic reddish hue; interspersed among these, however, are a few of a pale green colour.

The red colour was at first observed to be of a somewhat purple tinge, and for this reason was designated *sehpurpur*, (vision-purple), but further investigation has shown that the purple hue does not exist in eyes which have been kept in absolute darkness; the colour of such retinæ is a pure red, and the term *sehroth* (vision-red) is the more appropriate of the two.

* Berichte der Berliner Akademie, November, 1876.

The old idea that the act of vision depends on the occurrence of certain photo-chemical changes in the retina is now no longer a matter of theory, but has been shown to be correct by the observation of a series of very definite and easily demonstrable facts, and there can be no doubt that there exists in the living retina a red colouring matter, which is transformed by the action of light into several other substances.

It might at first thought excite surprise that the red colour of the retina has so long escaped the observation of physiologists; not so, however, when we take into consideration that the colour is constantly being destroyed during life, and that it disappears altogether very soon after death if the eye is exposed to the influence of day-light.

Kühne of Heidelberg, in some further experiments discovered that the colour was retained from forty to sixty times longer after death if the eye was only exposed to gaslight, and that in the dark, or when exposed to a sodium light, it was retained until decomposition set in. The retina, when removed from the eye, and bleached by the action of light, does not resume its red colour when kept in the dark; if however, it is only lifted up from the subjacent epithelium, and bleached, the colour is restored by replacing it in contact with the epithelium and keeping in the dark; hence it is probable that the power of restoring the red colour belongs to the retinal epithelium. In view of the facts recorded above, Kühne* was led to believe that by arresting the constant reproduction of red colour, which takes place during life, a more or less permanent objective image might be formed upon the retina, and his experiments in this direction have justified the assumption. The head and eye of a rabbit were fixed at a distance of 1.5 m. from a hole 30 c. m. square in a window shutter, covered five minutes with a black cloth, and then exposed for three minutes to the light from the hole. The animal was then decapitated, the eye enucleated as quickly as possible by sodium light, opened, and placed without delay in a 5 per cent solution of alum. Two minutes after death the other eye was exposed to the light and treated in a similar manner, except that it was not

* Centralblat f. d. Mcd. Wissenschaften, 3, 1877.

removed from the head. The following morning both retinæ were removed, and upon the posterior surface of each there was a sharply defined light image about one sq. *m. m.* in size, on a rosy-red ground. The image found in the second eye was the sharper and paler of the two. Both faded rapidly as the red ground became pale on exposure to light. In another experiment conducted in a similar manner, by placing the eye opposite a window the image of the latter was perfectly distinct, and was traversed by beautiful red lines corresponding to the crossbars of the sash. The red colour may be preserved for an indefinite length of time by drying the fresh retina on porcelain in the dark; it has not been discovered in the retina of birds, (pigeon, hen,) or of the snake. According to Kühne the red colouring matter of the retina is destroyed by a temperature of 100° C., alcohol, glacial acetic acid, and caustic soda; it is not altered by a 5 per cent. solution of chloride of sodium, a saturated solution of the same. Liq. Ammoniæ, glycerine, sulphuric ether, solution of alum, acetate of lead, nor by a 2 per cent. solution of acetic or oxalic acid. Boll suggests that the peculiar colour of the pupil, as seen by ophthalmoscopic illumination is derived from the retina, but there is not as yet sufficient evidence to warrant the acceptance of this view.

In order to ascertain the influence of coloured light upon the retina, frogs were enclosed in glass vessels of different colours and exposed to the light of the sun, and it was found that: (1) red intensified the colour of the retina; (2) yellow light makes it somewhat paler and clearer; (3) green light gives it a purple tinge, but when exposed to an intense green light the retina becomes violet; later on the violet becomes paler and paler, and at last the retina is found to be almost colourless. Blue or violet cause it to assume a muddy violet hue; if their action is prolonged the retina becomes colourless, just as when exposed to white light.

Thus it appears that the influence of light is maximal at the violet end of the spectrum and minimal at the red end, or in other words, that it is in inverse proportion to the length of the luminous undulations. With the process of bleaching a peculiar alteration takes place in the relation of

the pigment layer to the rods and cones, inasmuch as the two are readily separated in the unbleached retina, but adhere to each other much more persistently after bleaching has taken place.

How far these new facts will affect the current theories concerning the perception of light and colour, is not easy to predict. It seems certain, however, that the intensity of perception of light does not depend upon the rapidity with which the *vision-red* is consumed, for it remains unaltered in red, or in sodium light, although either of these may give rise to very strong luminious impressions. Without undertaking to formulate any theory in explanation of the perception of colour, Boll remarks that the above facts, for the most part, seem to indicate "that the action of colour on the rod-layer of the retina, that is, on an integral part of the nervous system, is such as to induce certain objective alterations of colour in its structure, identical in kind with the sensations and mental impressions which they create."

PATHOLOGICAL REPORT;

GENERAL HOSPITAL, MONTREAL,

For the year ending May 1st, 1877.

By William Osler, M.D.

Heart and Blood Vessels.

Of five cases of heart disease, one only, Case xliv, presented features of unusual clinical and pathological interest. It was an instance of hypertrophy and dilatation with advanced fatty degeneration, consequent, I believe, upon prolonged muscular exertion. Considering the rarity of such cases, and the prevailing doubt in many quarters of the possibility of the production of such an affection by overwork, I have reserved it for a separate paper.

Fenestration of the valves.—In exactly 20 per cent. of the cases were these peculiar little perforations met with in the

aortic valves, while in the pulmonary semi-lunar they occurred in only 7 per cent. They are either congenital or result from atrophy, and have no pathological difference.

Arteries.

Atheroma.—In twenty-three cases the aorta presented signs of degeneration, usually slight in amount. In five instances was the arch dilated and atheromatous condition very marked.

Aneurism.

Case xxxvi. — *Aneurism of commencement of Thoracic aorta, unsuspected during life. Death from general Tuberculosis.*

A. B., æt. 32, a well-built muscular man. The aorta presents at the arch several calcareous plates and patches of atheroma. A large aneurism, the size of the fist, found just below the termination of the arch. It contains numerous fibrinous laminæ. The posterior wall of the sac is formed by the 3rd, 4th and 5th dorsal vertebræ, which are bare, and the intervertebral cartilages much eroded.

Left ventricle hyertrophied; valves of the heart normal. The lungs stuffed with recent tubercles, and at the apices small caseous masses. An interesting fact is that so far as could be ascertained this patient had never suffered from any symptoms of aneurism.

Case lxix.—*Sacculated aneurism of ascending portion of arch of aorta. Rupture into the right pleural sac.*

J. C., æt. 40, a well-built muscular man. A little to the right of the middle of the sternum is an irregular oval swelling. On opening the thorax the cartilages of the 3rd, 4th, and 5th ribs on the right side with the corresponding portion of the sternum are found much eroded, the 3rd cartilage having almost entirely disappeared. The sac of the aneurism lies immediately beneath the sternum, which, with the above-named cartilages formed its anterior wall, (see below). It projects towards the right side and contains externally old laminated clots and dark fresh ones within. The mass removed from the sac filled the two hands.

The sight of rupture was discovered at the right side of the sac, close under the ribs, at which point the blood had burst into the right pleura through an opening ¼″ in diameter. The aneurism springs from the right side of the ascending part of the arch into which it communicates by a rounded orifice 1½″ in diameter, the margins of which are thick and project into the sac.

In the rest of its extent the wall is made up chiefly of condensed pleural and mediastinal tissues.

The right pleural cavity is full of coagulated blood, the serum floating uppermost. A large clot forming a mould of the cavity and grooved by the ribs, was removed entire, and weighed 3½ lbs. The lung on this side was compressed and airless; the visceral layer of the pleura over it rough, and covered over with minute patches of lymph. The left ventricle hypertrophied; muscle of good colour. Aortic valves a little thickened and puckered at the edges. Patches of atheroma exist in the intima of the arch.

CASE LXXXVII.—*Sacculated Aneurism of aorta, at termination of the arch, unsuspected during life. Death from Pneumonia.*

J. W., æt. 62. Died 18 hours after admission. *Heart.*—Left ventricle contains a dense decolourized clot, walls considerably hypertrophied. Aortic semi-lunar valves thick and atheromatous at bases and about corpora aurantii. *Aorta.* Whole arch dilated, the intima thickened and rough. At the end of the descending portion there is a sacculated aneurism, the size of a billiard ball, projecting from the antero-lateral part of the vessel toward the right side. The orifice of communication with the sac is 1⅛″ to 1⅜″ in diameter. The intima terminates by a rounded margin at the orifice. The wall of the sac is made up chiefly of the outer coat, and is lined with condensed laminæ of fibrin.

CASE LIII.—*Aneurism of Hepatic Artery. Almost complete obliteration of riyht branch. Multiple abscesses in the Liver.*

See C. M. & S. Journal, July, 1877.

CALE XLVIII.—*Aneurismal dilatation of branches of pulmonary artery on the walls of phthisical cavities. Death from Hæmoptysis.*

J. L., æt. 44, ill for some time with phthisis, died unexpectedly of hæmorrhage from the lungs. *Lungs.*—Seven cavities ranging in size from a walnut to a small orange found throughout the organs, chiefly in the upper lobes. Five of these contain blood with clots. Caseous masses numerous, and here and there small tubercles. On section of the lower lobes, irregular areas of a darker colour are noticed on the congested surface, which on inspection are seen to be small bronchi filled with clots, the lung tissue about them being deeply stained. On slitting up the branches of the pulmonary artery three aneurismal pouches, the size of peas, were met with in vessels running in the walls of cavities. They appear to be simple diverticula of the vessels, the intima being continued into them. From the side of the cavities they look like little irregular swellings on the wall. The origin of hæmorrhage was not discovered though all the pouches of the pulmonary artery in the right lung and lower lobe of the left were slit up. The vessels of the upper lobe of the left lung were, by mistake, not examined.

No doubt the hæmorrhage in this case was due to the rupture of one of these small aneurisms—the cause of the hæmorrhage in most of the cases of death from hæmoptysis in chronic Phthisis. (See Ramussen, Edinburgh Medical Journal, and Powell "Trans. Path. Soc." xxii.)

CASE IX. — *Aneurism at second bifurcation of the right middle cerebral artery. Rupture; extravasation of blood into the Sylvian fissure, and laceration of substance of the spheno-temporal lobe. Death in* 36 *hours.*

Mrs. R., æt. 40. See report of case by Dr. Bell. Can. Med. & Surg. Journal, August, 1876.

(*To be continued.*).

A CASE OF VALVULAR DISEASE OF THE HEART.

By John Reddy, M. D., L. R. C. S., I. &c.

Physician to the Montreal General Hospital, &c.

(Read before the Medico-Chirurgical Society, Montreal, June 8, 1877).

F. S., æt. 42, book-keeper, born in Canada; 5 feet 7 inches in height; 154 lbs. in weight, robust. Father, mother and five brothers and two sisters, all in good health, no death having occurred in the household. Called upon me on the 8th of June 1876, and gave me the following account: He stated that he had been to England where he had spent six weeks on business connected with his firm; that he had been most actively engaged the whole time, taking but little rest, and feeling quite fatigued in both body and mind, often experiencing a sense of uneasiness about his chest, attended with a short dry cough, especially after dinner. This would trouble him for a few hours. He slept tolerably well, had a fair appetite; bowels in good order, and spirits good. His habits were very regular, and up to this period he enjoyed a fair share of health, although he sometimes felt pains about his joints which did not last long or come often. He was just a fortnight returned and wished to consult me about his present state, which he said he could not understand. When he walked quickly or became much excited he would be seized with hurried breathing and dry cough; that he was annoyed with frightful dreams at night, awaking with shooting pains through his chest, of short duration. He attributed these symptoms, indeed his present state and all he had been suffering from having over exerted himself while in London. He reminded me that two years previously he had consulted me for pains in his joints, chest and head which lasted about a week and yielded speedily to treatment. He never had articular rheumatism nor heart affection.

Present appearance: Face pale and anxious, breathing somewhat hurried; respirations 28; temperature normal. Pulse 88, jerking; has a short dry cough, and complains that he can never raise "phlegm." He is often affected with pain in his

head, which occasionally interferes with his vision, often having motes before his eyes; he has dizziness and constant fear of falling; is slightly constipated.

Physical signs—*Heart.*—Visible area of impulse increased; most evident on palpation, and a little to the left and full. The only dulness corresponds to apex beat about half an inch to the left, but is not marked. At the junction of the third rib with the sternum to right, the stethoscopic signs present are, a rough systolic murmur, loudest at the second sterno-costal articulation on the right side, which is also heard at the carotids, and in the subclavians; an aortic diastolic murmer not very loud also exists, heard all over the cardiac region, and below xiphoid cartilage; partial hypertrophy of left ventricle but no valvular murmur; posteriorly the aortic diastolic murmur is heard from about the third to about the eighth rib. The *lungs*, *liver* and *spleen* are normal. No œdema exists. Urine, spec. grav. 1020. No. albumen. Directed to avoid everything of an exciting character, quick walking or much bodily or mental work. Ordered a tonic of sulphate of quinine, and proto-sulphate of iron, &c., and a mild aperient, also directions about diet.

(Thirty-four days from last visit), 12th of July, called to report himself. Has experienced decided benefit from his tonic, as well as from the amount of quiet and rest he has managed to take.

Pulse 90, jerking and occasionally irregular. Physical signs. *Heart* dulness increased to the right of sternum and up to the fourth rib and partial pulsation exists in the epigastrium, corresponding to the region of the right ventricle a soft regurgitant murmur exists, and slight jugular pulsation, the other signs and murmurs are about the same. The only marked difference, tricuspid insufficiency has occurred since last examination.

Twenty-eight days from last visit, 10*th August*, called to say that he was doing tolerably well up to about four days ago, when his sleep was interrupted by cough and occasional dyspnœa; often feels affrighted without being able to assign any cause. Does not expectorate. Bowels regular; thinks he passes his usual amount of urine. Pulse, 80, same character

as before. Ordered a mixture—℞. quininæ sulph. grs. 12; acid sulph. dil. 3ii; tr. digitalis 3i, aquæ ad 3vi, a table sponful three times a day.

Oct. 14*th.* — Called this morning complaining of great difficulty of breathing, and slight swelling of his feet and ankles, also constipation. Pulse 80, of same character as before. Occasional headache; cough and dyspnœa the same as at last examination. Does not think that there is any diminution in the urinary secretion. Heart sounds about the same with the exception that left dulness is more marked, also the hypertrophy of the left ventricle, but no murmur. Ordered a mixture: ℞. acet. potassæ 3ii; infusi digitalis ℥ii; spt. ætheris nitrosi, 3v; syrup aurantii, ℥i; aq. ad ℥vi: a table-spoonful three times a day. Also half ounce doses of bitartrate of potash as a purge occasionally.

19*th.*—Called this morning to report his state. He had obtained considerable relief from the last treatment for about two days, but that owing to nausea he had to stop his mixture, and since that his ankles became more swollen. He had had several liquid stools. He appears anxious and nervous, and says attending to his business worries him, as he cannot concentrate his mind sufficiently, and this always appears to him to increase his heart beat. Both jugulars pulsate to-day in large zigzag lines; this has occurred since last visit. I advised him to remain at home, and for the present not give any attention to business.

28*th.*—Was sent for to-day. He was up and seemed much calmer than usual; stated that some days he felt better and others worse, that he had taken his mixture occasionally with relief till it produced nausea. He said that he sent for me because he could not lie as flat as usual when in bed, as when he tried to do so it produced a great sense of suffocation. His legs and ankles are very much swollen, and his eyelids puffy. Aortic direct murmur is much rougher; the regurgitant is more diffused and occupies the entire cardiac region, and down below xiphoid cartilage, heard also loudly along the spine. Hypertrophy of left ventricle increased with corresponding dulness. Loose œdematous rales are heard at the roots of the lungs. The *liver*

is much enlarged and feels hard. The urine is somewhat diminished, spec. grav. 1020. No albumen. Pulse 100, jerking, occasionally irregular with a very peculiar vibration. Owing to the nausea produced by the digitalis, I ordered the acetate of potash with broomtop infusion and compound powder of jalap to act upon the bowels. Hot mustard foot-baths occasionally. Diet milk, beef-tea, &c. To take ten drops of the muriated tincture of iron three times a day in his mixture.

31*st.*—Pulse 100. Heart's action very tumultuous. Orthopnœa; extreme breathlessness, especially if he reclines backwards. Anasarca rapidly increasing. Urine passed last 24 hours, 26½ ounces. Diuretics and purgatives seem to give but little relief. Seidlitz powders to be used occasionally as the stomach is irritably inclined. Is to have a steam bath.

Nov. 5*th.*—Seems a little better to-day, which he attributes to the effect of the seidlitz powders. The steam bath he could not bear as it rather oppressed him. The urinary secretion has diminished for the past five days as follows: 22 oz., 22 oz., 18 oz., 14½ oz., in the 24 hours. The liver feels hard, its outline well-marked, and somewhat enlarged. A slight biliary tinge exists all over the body. There is considerable difficulty in breathing with cough, and a tenacious gluey mucous tinged with blood. Both infra-scapular regions are dull on percussion, and over the lungs corresponding are heard fine and sub-crepitating rales. Œdema of extremities; also ascitic effusion most marked. As his stomach cannot retain medicine nor food, I acupunctured both legs and ankles at my visit.

6*th.*—Pulse 100. Marked change for the better. General œdema very much reduced; can nearly lie down. The nausea is much relieved. The hæmoptysis continues; the discharge from the acupuncture openings is very considerable, requiring the blankets with which his legs are covered to be removed every hour and replaced with dry ones. Can retain his food much better.

12*th.*—Pulse 120, jerking and fuller. Heart's action considerably increased. Dulness marked and extending beyond axillary line to left, hypertrophy of left ventricle increased. No

murmur exists beyond prolongation of first sound. Jugular pulsation is very marked. For the past few days he has passed between 8 and 10 oz. of urine in the 24 hours. The œdema is slightly on the increase again owing to the openings in the extremities being very nearly closed up, and nausea has partially returned. Used acupuncture again to-day freely over both legs, all other treatment being useless.

20*th*.–For a few days while the acupuncture openings remained patulous, he again had a remission of all the urgent symptoms, but to-day he appears as ill and oppressed as ever, his cough is most troublesome, he cannot lie down or obtain rest in any position. His skin has now become more discoloured, having a dark-olive shade. Dr. Campbell saw him with me to-day, and confirmed my diagnosis; he also brought to light an important fact that he had treated him nineteen years previously for syphilis. The case was very persistent, requiring treatment for a long time; he is of opinion that the occasional pains which he suffered from that period were owing to the syphilitic taint. I shall summarize his condition when examined to-day. Temperature 99°; pulse 120, jerking and irregular; respirations 36; general anasarca, orthopœa, extreme restlessness. No desire for food, nor ability to retain it. Urinary flow diminished to about 4 oz. in the past twenty-four hours; dark coloured, containing a trace of bile acid. No albumen, confined bowels.

Examination of lungs: anteriorly no dulness on percussion over supra-clavicular regions. On left side dulness exists within an area commencing at the lower margin of the second rib to lower margin of mammary region. From right to left it is marked from one inch to the right of sternum, to nearly one inch beyond the infra-axillary line. Posteriorly, marked dulness exists from bases of both lungs, gradually shading off till it reaches the upper line of infra-scapular; on palpation a diffusable impulse exists over the space occupied by the heart coresponding to the dull area.

Stethoscopic signs.—No rales heard anteriorly. Heart's action very irregular, impulse full and heaving, aortic direct murmur loud and sharp, extending up carotids, and into

brachials; aortic regurgitant diffused all over the heart, nearly masking all other sounds. Tricuspid regurgitant inaudible but positive from largely defined ziz-zag jugular pulsation. Pulmonary valves intact. Mitral, no murmur can be heard but prolongation of first sound barely audible at angle of eighth rib, which possibly may be owing to partial incompetency. A few fine crepitations are heard over the bases of both lungs posteriorly as high as the angles of both scapulæ also subcrepitant in inspiration and expiration, a thick tenaceous mucous is occasionally expectorated, much tinged with blood. From the great irritability of the stomach and dislike to touch food of any kind, acupuncture was again resorted to to-day.

30*th*. 10th day since last visit.—His general symptoms have had so much sameness that they have been purposely omitted till this day, no improvement of any kind having taken place in his condition. The nausea and vomiting are unaltered. Urinary flow diminished to a few ounces, in the 24 hours, for some days. Acupuncture openings failing also to render relief. His colour has also changed to a dark olive of a malignant shade. He appears to be sinking. He was seized at 3 o'clock p.m., with a sudden severe paroxysm of pain in the region of the heart, and died in a few seconds.

It is somewhat interesting to notice in this case the order of valvular failure. The aortic direct at the commencement was the most marked murmur, next the aortic regurgitant gradually increased and became so diffuse as to mask every other cardiac sound. Next partial hypertrophy of left ventricle with very slight prolongation of first sound, at no period amounting to a murmur, possibly owing to slight incompetency of mitral valve, then followed tricuspid regurgitation—the invasion of the two latter being in inverse order—as in ordinary cases the right ventricle usually supplements valvular failure in the left. Early observable too was the progressive scleromatous state of the kidneys, liver and lungs, the latter interspersed with lobular patches of condensed lung. A question might possibly arise in reviewing the history of this case. May not syphilis have played some part (though dormant apparently for years) if not in pro-

ducing at least in influencing this rapid and formidable affection? Against this view may be stated the fact that his children, five in number, have been quite healthy from their birth, and his wife has been always in the enjoyment of good health.

Before concluding I should also mention that in October last, when examining the femorals with the stethoscope, its pressure caused a reduplicated murmur systolic and diastolic, loud and distinct: same as described by Durozier, who states that it ocurs most frequently in aortic insufficiency (which was well marked in this case), he does not, however, consider it pathognomonic, pressure made by the fingers above and below, the stethoscope gave the same result. Traube has also made us acquainted with a new symptom which enables us to estimate the degree of insufficiency of closure in the valve. He demonstrated that when the insufficiency was very great a reduplicated sound, systolic and diastolic, can be heard in the crural without any artificial pressure. He explains the production of the sound from the fact that membranes begin vibrating audibly during a transition from a maximum to a minimum tension, and these conditions are best fulfilled by the crural artery, since its tension during systole of the heart, is abnormally great, and its slackness during diastole is very considerably owing to the facility the blood has of flowing both into the capilliaries and back towards the heart.

POST-MORTEM EXAMINATION BY DR. OSLER.

Heart.—Weight, with arch of aorta attached, 23 oz.

Right auricle distended with dark semi-coagulated clots. Much blood escaped from the venæ cavæ. Chamber dilated. Eustachian valve persists. Orifice of the coronary vein very large, its valvular fold thin and fenestrated. Foramini Thebisii large.

Right ventricle: cavity dilated, and full of dark clots. Tricuspid orifice 5½ inches in circumference.

Left Ventricle contains a small quantity of dark blood. Chamber dilated, length from aortic ring to apex 4⅛" Anterior wall at the middle, 1" from the septum, ⅞" in thickness.

Mitral orifice 4½" in circumference. Valves somewhat thickened on the auricular surface.

Aortic valves, incompetent. On slitting up the artery two segments only were noticed; one, the posterior, situated above the ant. seg. of the mitral, is large, occupies nearly half the circumference of the tube, measuring $1\frac{1}{2}$" along the straight margin, 2" along the attached border. This segment is opaque and thickened in spots by atheroma. Sinus of Valsalva behind it, large. The other segment is incomplete, a somewhat V shaped piece being absent from the anterior end. The straight border extends for $1\frac{3}{4}$", then terminates in a rounded angle. The edge of this segment is round and thickened, and the whole valve opaque. The aortic side of the segment presents an indistinct frenum about the middle of the attached margin, uniting it to a thick elevated atheromatous mass, which also serves to divide the sinus of Valsalva incompletely into two, the one behind the imperfect side of the valve being small, the other of fair size.

The aorta is dilated and large; circumference one inch above the valves, $4\frac{3}{8}$"; at the junction of the ascending and transverse portion of the arch 5"; at commencement of ascending portion $2\frac{1}{2}$".

The whole intima is scattered over with raised yellowish-white masses of atheroma, which extend also into the thoracic portion.

On microscopical examination the heart muscle was found fatty, here and there fibres presenting the dark-yellowish granules of brown atrophy.

Lungs.—Right: three large spots of apoplexy in this organ, one occupying nearly the whole thickness of the free margin of the middle lobe, extending 2" towards the root. Left: two spots of apoplexy; one in the free margin of the upper lobe; the other in the posterior free margin of the lower lobe. The rest of the lung crepitant.

Spleen, somewhat enlarged and firm, is dense.

Kidneys, appeared about the normal size. Capsules do not detach very easily and bring along small bits of the organ; surface, a little granular.

Liver, of about the normal size. Surface a little granular. On section firm, hepatic veins full.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Tuberculous Nephritis. Rigors a marked Symptom. With Autopsy,—showing entire destruction of one kidney, and on earlier stage of the disease in the other. Under DR. ROSS. Reported by Mr. J. A. GILLIS.

T. J., æt. 32, was admitted on the 25th of September, 1876, complaining of continuous dull pain in the region of the left kidney, and sharp burning pain along the urethra during and after micturition.

Family history good. Mother died of phthisis at 55 years of age.

Had tertian ague two years ago; with this exception has always enjoyed good health until about eight months' ago, when he noticed increased frequency of micturition. This symptom has gradually increased until now. He voids urine eight or ten times during the night. Latterly he has occasionally noticed a few drops of blood coming just after the urine passed. Two weeks ago he had a series of chills occurring at irregular intervals. They have not been so frequent this last week. He is a man of rather slight stature, and very much emaciated. His skin is dry and rough. His tongue moist and clean. He has constant dull pain in the left kidney, extending to the hypogastric region, increased by any jar or driving. This pain is much increased by pressure upon this kidney either in front or behind. No enlargement of the organ could be detected. Burning pain is felt along the urethra during and after micturition. He is passing about 5 pints of urine per diem. It is pale and somewhat opalescent, looking like water to which a few drops of milk had been added. On standing it throws down a very small and light white precipitate, which the microscope shows to be pure pus. Its spec. grav. is 1006, and the usual test shows it to contain a little albumen. He has no cough or other pulmonary symptom, and the lungs on examination are found to be healthy

Pulse 80, rather weak; temperature 99⅘° F. A sound was passed and the bladder explored for stone, but none was found. The bladder appeared to be very sensitive. Ordered liq. morphiæ *m*xx three times a day.

Oct. 1*st.*—Had a rather severe chill yesterday and to-day. Temperature is 103° F. Much thirst. Ordered in addition: ℞. Spts. chlorof. m x. Liq. Ammon, acet. ℥ij. every 4 hours.

2*nd.*—Urine of same milky appearance. Same minute white deposit and faint appearancc of albumen on resting. Another severe chill to-day. From this time throughout the whole of the remainder of this month, the patient continued steadily to emaciate and become weaker. Rigors followed by pretty high temperature were recorded every three or four days. Constipation prevailed, and required the occasional use of purgatives. The condition of the urine remained continuously exactly the same as already reported. Local pain and tenderness rather increased. Abdominal walls always tense and resisting palpation. No enlargement of the kidney could be found. He took quinine gr. xv every day or two according to circumstances.

Nov. 2*nd.*—Severe vomiting to-day. Urine becoming very much diminished in amount.

4*th.*—Has passed no urine for 15 hours.

5*th.*—Passed 10 oz. of urine last night, albuminous as usual. Pain in kidney and during micturition very severe. Ordered vapor bath twice a day.

22*nd.*—Has been getting very weak. A very few ounces of urine only passed each day. The last two days has been much troubled with hiccough and some vomiting. The extremities are clod and blue and the pulse rapid, very weak and compressible.

28*th.*—Almost daily chills. An extremely exhausted condition; vomiting and hiccough constant and severe. Quite cyanotic with arms and legs very cold.

Dec. 3*rd.*—Very low. Urine scanty and contains more albumen and pus than heretofore; lies in a torpid, drowsy condition, hardly even moving himself to speak.

6*th*,—Has been gradually sinking. Average amount of urine

during the last three days has been only seven ounces. Died quietly at 9.45 a.m. to-day.

AUTOPSY 48 HOURS AFTER DEATH.

Kidneys, *right.*—Small, lobulated externally. To the feel, apparently made up of purulent cysts. On section the whole organ is seen to be converted into a mass of cysts, containing a fluid through which numerous white flocculi are scattered. The fluid is not properly pus. The cysts are about a dozen in number, averaging the size of a walnut, and communicating together; their walls are in places infiltrated with tuberculous matter, and on stripping off the capsule numerous tubercular masses are found on the surface of the cortex. *Left.* Very large, more than three times the size of the right. On section, the pelvis is dilated, the walls thick, covered with a dirty exudation of a greyish colour. The calyces are also dilated, and their walls in a similar condition. The pyramids are injected and contain in many places small round collections of pus. Throughout the cortex, which is swollen, numerous suppurating foci exist. On stripping off the capsule, the surface of the organ is found studded over with similar bodies. Many of them came away with the capsule looking like small tubercles in its substance. Section of these white masses in the kidneys shows them to be firm and usually solid throughout, occasionally softened in the centre, in which case the periphery is dense, from which it would appear that the pathological process is *tubercular* not suppurating.

Bladder.—Mucous membrane roughened and ulcerated. The healthy portions of the membrane are reddened and injected. Quite three-fourths of the entire membrane is destroyed by ulceration, the destruction having extended in many places deep into the muscular walls.

Lungs contained a few scattered small masses of caseous tubercle. With this exception there was nothing abnormal in the general condition of the other organs.

Case of Diabetes Mellitus.—Pulmonary Complications. Death and Autopsy. — Under Dr. Ross. Reported by Mr. J. A. F. GILLES.

J. W., æt. 26, joiner, was admitted into the Montreal General Hospital under Dr. Fenwick, on the 1st September, 1876. He complained of great weakness, thirst, and frequent micturition.

Family history good. No tubercular or other hereditary taint. Has never indulged in excessive use of alcoholic drinks.

He dates the commencement of his present illness to about nine months ago, at which time he noticed that he was often very thirsty. At that time his appetite was good, but not voracious. He soon began to pass an increased quantity of water, getting up often six or seven times in a night.

Oct. 1st.—Was transferred to Dr. Ross whose term of service began. He is now considerably emaciated. The muscles feel soft and flabby; the skin is harsh, dry and rough; the countenance dull and careworn. There is slight œdema of the ankles. Tongue large, dry and foul, gums red, tender and somewhat swollen. His breath has very markedly the peculiar chloroform or violet-like odour. Pulse weak, about 65; temperature 97° F. He passes from 12 to 18 pints of water every 24 hours, of very pale, slightly feverish tinge, and an odour like that from the breath. Specific gravity 1040. All the sugar tests applied give most positive results, viz: Fehling's, Potash, Trommer's, and the Fermentation. Allowed to stand a few days in temperature of 70° to 80°, it does not decompose but turns sour and smells of vinegar. It contains no albumen. His appetite varies, but is generally good, and occasionally excessive. Bowels pretty regular—sometime has diarrhœa. Lungs normal. Sight not impaired. He suffers much from continued thirst, and drinks from 10 to 16 pints of water in the twenty-four hours, besides milk. Has been taking 4 pints of milk, chop and two eggs. Pot. bromid gr. xv. Tr. Calumb ʒss three times a day.

3rd.—Not much change. Diarrhœa has been troublesome, and required astringents to control it. The urine of 1st. Oct. tested for the amount of sugar pr oz. by comparing the specific

gravities before and after the fermentation, and calculating gr. i of sugar for each degree of difference observed, gives 32 grains per oz., and the amount passed has been 260 oz. So that there has been got rid of in twenty-four hours the large amount of 17½ ounces of sugar. On the 25th September his weight was 118 lbs., during the last 10 days he has lost 10 lbs. Diet changed to-day to brown bread, 30 oz. of meat, fish, 2 eggs and 1½ pints of milk, and 2 oz. brandy, and to take ℞. tr. ferri mur. gtt. xv. tr. quassiæ ʒss ter die. As a drink also he was given a phosphoric acid lemonade (acid phosp. dil. ℥ii; glycerine ℥ss; aquæ Oij.) Up to this the amount of urine varied between 8 and 18 pints—average about 13½ pints. The specific gravity between 1036 and 1046, and average 1041. From these figures by the same calculation as last given, the mean quantity of sugar per diem has been 19·7 oz.

Under this treatment, although the amounts of urine and sugar were diminished, yet he continued to lose weight, and on the 17th, weighed only 117 lbs. From this time he began to gain in weight, and by Oct. 31st, weighed fully 122 lbs. Has become more cheerful, pulse stronger and fuller, and tongue much cleaned. Since last date mean amount of urine 8½ pints; mean specific gravity 1032.

Several changes in diet were made which it is unnecessary to record; the appetite being large and at the same time capricious. The bread, of course, was the great difficulty, and not being able to procure suitable brown bread or gluten bread, the doctor was obliged to order him toast, also coffee, beef-tea, ham and eggs, and various other things.

No new features were observed until the patient (at the termination of the Hospital quarter) passed from under the hands of Dr. Ross into other hands. From this time we have no notes of the case. He died on the 15th January, 1877.

AUTOPSY 24 HOURS AFTER DEATH.

Right kidney.—Weight 260 grammes. Cortex somewhat pale.

Left kidney.—Weight 280 grammes; large; capsule easily removed. Section normal; base of pyramids congested, and reddish lines extend into cortex.

Right Lung.—Postero-lateral part occupied by a large irregular cavity, holding about 1 ounce. The walls are ill defined, being made up of dirty, greyish-brown pasty material, caseous in character. The lung in the immediate neighbourhood is almost airless, dark in colour, and much blood and serum exudes from the cut surface. There are no chronic changes in the lung about the cavity which was situated in healthy tissue in the first stage of pneumonia. Almost the whole of the lower lobe of this lung is in a condition of red hepatization. The anterior part of the upper, and the whole of the middle lobe being alone crepitant. No nodules or tubercles anywhere in the lung.

Left Lung.—Upper lobe crepitant at the anterior free border. Rest of the lobe dark in color and heavy. Entire lower lobe in a state of red hepatization.

Liver and Spleen rather large and somewhat congested. Other organs normal.

Correspondence.

LONDON, JULY 9th, 1877.

DEAR MR. EDITOR,—I have now seen every surgeon of eminence in London perform a greater or less number of operations, and have heard the majority of them teach at the bedside, so that if time permitted I could give you a volume of impressions, but these had better, perhaps, in any case, be reserved for a future occasion. I will take this opportunity, however, of testifying to the uniform kindness and consideration extended to strangers by the profession in London. My own experience may have been peculiar, although I have no reason to think it has, but certainly the cordial, and friendly manner in which I have been everywhere received is to me a source of much pleasure.

The operation of ovariotomy, as performed by Mr. Spencer Wells at the Samaritan Hospital, differs in no very marked degree from that we have been accustomed to witness in Montreal. The patient, instead of being brought to the end of the table, is laid full length, the arms being secured to the sides, and the lower extremities held down by a broad belt passing

over the thighs. I failed to see the great advantage of this position over ours; in fact in one case it became necessary to turn the patient on the side, and much valuable time was lost in undoing the strapping. The bichloride of methylene is the anæsthetic always employed. Instead of stopping to ligature every little artery that bleeds, and in that way retarding the operation, Mr. Wells applies a pair of catch forceps to every bleeding point, so that before he has reached the peritoneum there will perhaps be half a dozen hanging from either side of the incision. He seldom uses a director, but having reached the tumour at one point, he enlarges the wound throughout with a pair of long and strong scissors, bent slightly at an angle. He does not hunt for adhesions beyond an inch or so from the edges of the wound, thus irritating the peritoneum as little as possible. When a sufficient quantity of fluid has been allowed to escape he grasps the tumour with both hands, a towel intervening, and carefully delivers it, any adhesions being continuously detached during the delivery. Any bleeding points among the adhesions are seldom ligatured if the catch forceps can be applied. The pedicles, in the cases I have seen, were transfixed with the ordinary long needle carrying a hempen thread and tied in halves. Mr. Wells, I find, is most particular in sponging out the cavity until not a vestige of clot remains. The sutures consist of ordinary linen thread about a foot long, and having a needle at either end which is introduced from within outwards at either side, so that the peritoneal edges can be most readily adjusted. The wound is dressed with scraps of dry boracic lint, a moderately thick compress of lint on either side, and a little cotton-wool above,—all held down by broad strips of adhesive plaster,—and the whole covered with flannel bandage brought once round the body. Mr. Wells has recently had what he calls a very narrow escape from the antiseptic system. He had ordered arrangements to be made to operate on a series of some twenty-five cases antiseptically. By some misunderstanding things were not ready when required, so he went on and performed twenty-seven successful operations. Of course had Mr. Well's original intention been carried out the friends

of " the antiseptic " would have been jubilant. Lister himself, however, is not satisfied that his system, as at present practiced, is going to hold good when the peritoneum is interfered with. He fears the spray may be too irritating for so delicate a structure. However, this is merely conjectural on his part, as he has not yet had that amount of experience in this direction, which would justify him in taking a more positive stand.

I have been fortunate in seeing Mr. John Wood perform in two cases his radical cure for hernia. In a few short but very interesting remarks in connection with the subject, he stated that he had now performed the operation about two hundred and forty times with only three deaths, from erysipelas, pyæmia, and peritonitis respectively. Among the favorable cases, he has had seventy per cent. of cures, and among the unfavorable forty per cent. Both the cases on which I saw him operate were children under twelve years, and a day or two ago they were doing well. Mr. Wood has a very interesting case in his wards at present of aneurism of the external iliac treated by galvano-puncture and pressure combined. In five hours pulsation had entirely ceased in the sac, but gangrene of the limb rapidly supervened, so that a few days ago amputation at the knee-joint became necessary. Since then the flaps have sloughed leaving the articular surface of the femur bare, but otherwise the man is doing well.

Speaking of aneurism, I was present at the London Hospital two days since when Mr. Hutchinson applied the elastic band in a case of popliteal aneurism. He left it on an hour and ten minutes, at the end of which time no pulsation could be felt in the sac, but every precaution was taken by the application of pressure above, to prevent too full a current of blood from traversing the vessel. As a precautionary measure a tourniquet was kept applied for the next twenty-four hours, and to-day I understand there is no pulsation to be felt, so that a cure has evidently been effected. This mode of treating aneurism is, I take it, one of the greatest triumphs in surgery of the present day.

I have seen the Guy's Hospital men perform a great many

operations, but none interested me so much as the extraction of stone by the use of the straight staff. Guy's is the only hospital in London where Aston Key's staff is employed. A few days ago Mr. Bryant cut two cases, and certainly the operations were most expeditiously performed. In one of the cases he made use of the lithotrite for the purpose of measuring, and one could have sworn there were two stones, although the sequel proved otherwise. The explanation was that the stone was held loosely in the instrument, which, when moved imparted the feeling that another was being struck. Mr. Bryant seldom or never, except in the case of hæmorrhage, introduces a tube through his lithotomy wounds. Mr. Thomas Smith of St. Bartholomew's, on the other hand, always uses the tube covered with lint sufficiently thick to fill up the wound. He does it both to avoid hæmorrhage and to prevent the urine from irritating the wound. A stone case of his, an exceedingly delicate looking child, was brought into the theatre of the Children's Hospital about ten days ago to be operated on. The stone had been discovered by the House Surgeon, and although we all thought we felt it with the short-beaked sound, it could not be struck with the staff, so Mr. Smith very wisely post-poned interference. The child has since died, and at the autopsy a stone was found in the bladder and another in the kidney. He very rightly thinks that his lithotomy record (a very good one by the way) has had a narrow escape. Mr. Teevan of St. Peter's Hospital is reviving the recto-vesical operation for stone. He has performed it twice since I came to London, and the cases have done very well. It remains to be seen whether fistula is going to follow, as that, of course, is the great objection to this operation.

I have been taking a more than ordinary interest in skin diseases, and have seen not a few unique cases. Dr. Tilbury Fox was good enough to show me the other day, a case of *morphœa nigra* in a young gentleman, aged about twenty. There was a patch on either shin about three inches in breadth by six in length—of a dark-brown colour, waxy-looking, and glistening in appearance. I saw at the same time a case of *lepra anæsthetica* or non-tubercular leprosy in a lad aged about

seventeen. He was born in India and had suffered from the disease since early life. I have also seen more than once the cases of *hydroa* and *acne cachecticorum* which have recently excited so much controversy in the Pathological Society. Lupus is terribly prevalent, and one occasionally comes across a case of ichthyosis and molluscum.

Dr. Sayer of New York is in London at present. I am invited to attend a demonstration of his at Charing-Cross Hospital on Saturday next. He is going to apply his Plaster-of-Paris Splint in a case of spinal disease, and exhibit some hip joint apparatus he has brought over with him.

Yours, very truly,

T. G. R.

Reviews and Notices of Books.

Cyclopædia of the Practice of Medicine.—Edited by Dr. H. von ZIEMSSEN. Vol. xii. Diseases of the Brain and its Membranes. By Prof. H. Nothnagel, of Jena; Prof. E. Hitzig, of Zürich; Prof. F. Obernier, of Bonn; Prof. O. Heubner, of Leipzig, and Prof. G. Huguenin, of Zûrich.—Translated by Henry R. Swanzy, M.D., of Dublin; Chas. Emerson, of Concord; Edward H. Bradford, M. D., Elbridge G. Cutler, M.D., Robert Z. Edes, M.D., James J. Putnam, M.D., Frederick C. Shattuck, M. D., and S. G. Webber, M.D., of Boston; and Louis Velder, M.D., of Elmira. Albert H. Buck, M.D., New York, Editor of the American edition; 8vo: pp. 902. New York: 27 Great Jones Street, 1877.

This volume has been looked forward to with great expectations, as containing the views of the Germans on the very interesting questions in the physiology and pathology of the nervous centres. We do not think the reader of it will be disappointed. This volume is, perhaps, the most interesting if not the most valuable of the series.

The subjects of the first articles are anæmia, hyperæmia, hæmorrhage, thrombosis, and embolism of the brain, from the

pen of Nothnagel. The articles on hæmorrhage, thrombosis and embolism, are each a perfect critical analysis of the investigation of British and Continental writers. The introductory article on " general considerations on the circulation of the blood in the cranial cavity," give lucidly the now generally received views as to intracranial pressure, and intracranial circulation. After brief articles on anaemia and hyperæmia, the author in the article on cerebral hæmorrhage, gives us the following facts as to the symptoms of cerebral lesions, and the deductions for the possible localization of lesions. The articles on occlusion of the cerebral vessels are full of interest. As to the connection between the so-called " cerebral " variety of acute rheumatism and capillary embolism, he alludes to the negative results of the investigations, and to the fact that cerebral rheumatism may occur entirely unattended by disease of the valves.

The next paper by Professor Obernier is on tumours of the brain and its membranes. As to the power of accommodation in respect of neoplasms " he concludes that it is so much the greater the further the locus morbi lies from the base of the brain and from the cerebral ganglia toward the expanded surface." He considers the symptoms under the heads of disturbances of the psychical functions, of the nerves of sense, of motion, and other disturbances; and special groups of symptoms according to their course, according to the nature of their neoplasm, and according to the situation. This is such an exhaustive treatment of the subject in a compact form that I do not know of elsewhere.

The paper by Heubner on syphilis of the brain, spinal cord, and peripheral nerves, contains all that is known of these affections which are of great interest at this day, and the pathology of which is entirely modern and the result of the investigations of very recent years.

The next series of papers on acute chronic inflammation of the brain and its membranes is by Prof. Huguenin, and comprises 444 pages of the volume. We would draw attention to the article on metastatic meningitis, a name which is retained, although the views under which it originated are long since obsolete. The author regards it as a tenable view, that men-

ingitis occurring as a terminal complication in the course of acute diseases of another nature is the result of an infection of the pia mater through the arterial current. Another interesting article is one on "meningitis of the convexity due to external and unknown causes." The series of papers by Huguenin is concluded by one on chronic abscess of the brain.

The final articles of the volume are on hypertrophy and atrophy of the brain by Prof. Hitzig.

Reviewing the volumes of this cyclopædia, suggests to us the almost terrifying thought that there is so much worth knowing. Though many of the papers are regarded of so little practical value to the physician in his daily practice, as additions to the literature of our profession their value is inestimable.

Surgical Observations with Cases and Operations.—By J. Mason Warren, M.D., Surgeon to the Massachusetts General Hospital, Fellow of the American Academy of Arts and Sciences, &c. 8vo. pp. 680. Boston: Ticknor & Fields, 1867.

This work is a valuable contribution to the annals of practical surgery, and is issued from the press under peculiar circumstances. It was published in the year 1867, shortly before the death of Dr. Mason Warren. In consequence of that sad event the book was withdrawn and placed in store. It, now, after the lapse of ten years, is issued and comes to us the living and truthful record of a man long gathered to his rest; one who in his lifetime was well known as a surgeon of eminence, both in his native country and abroad. In the preface the author modestly states that this volume contains some results of surgical experience. The cases cited are chiefly from the records of the Massachusetts General Hospital, and in making the selection the author published only those cases of which the histories had been well ascertained. The classification is according to the regions of the body, if we except the last chapters in the book, which relate to Gun-shot wounds, Tumours and some miscellaneous cases.

Chapter i. is on surgical injuries of the head, fractures

of the skull, trephining for epilepsy, injuries of the scalp, and concussion of the brain. In this chapter there is reported the particulars of ten cases of trephining for epilepsy, where that malady had been developed after previous injury to the skull. One half of these cases were fatal; two were relieved, and three cured. In the second chapter is considered surgical injuries of the face, rhinoplastic operations, operations for the restoration of parts destroyed by epithelial cancer, rodent ulcer, &c. Two cases are reported of restoration of the nose, after Taliacotius, in the one instance, the flap was taken from the radial side of the fore arm, and in the other it was taken from the integument covering the upper part of the biceps muscle. The author notices the disadvantages of this method, in the length of time during which it is necessary to keep the limb in painful restraint, which is sometimes followed by temporary paralysis. The third chapter is on the surgery of the neck, foreign bodies in the air passages and œsophagus, tumours of the œsophagus; under this head is described a most singular and unique case of a polypoid growth attached to the outer side of the epiglottis, which the patient was capable of forcing into the mouth from the gullet; in consequence of rapid growth it interfered with his swallowing. The author remarks "he applied to me May 1st, 1866, and I could hardly credit the statement he made with regard to the size of the tumour. By making, however, a regurgitating effort he at once convinced me of the fact. A large white-looking tumour of the shape and size of a small sausage was thrown up into the mouth, while in this position it caused constant efforts to vomit." On examination with the laryngoscope, its attachment was found to be by a broad base to the left and outer side of the epiglottis, a ribbon-like pedicle extended down the œsophagus. The growth was removed by the scissors, a ligature having been firmly tied at the base; this was done as a precautionary measure; as it seemed very vascular. The removal of the tumour gave great relief, and the ligature with the pedicle of the tumour separated on the sixth day. The concluding portion of this chapter is on removal of the tonsils, fissure of hard and soft palate, and harelip. Para-

centesis thoracis is next discussed in chapter four. Then we have chapters on the abdomen, the anus, genito-urinary organs in the male and female.

Chapter viii is devoted to fractures, dislocations and excisions of joints. This chapter contains a table giving the results of amputations in different regions, perfomed at the Massachusetts General Hospital from January 1822, to January 1866, a period of forty-four years. From this we learn that there were 204 cases of amputations at the thigh ; of these 55 died, giving a per centage of 26.96 per cent. of fatal cases. Amputations of the leg yielded a death rate of 29.08 per cent. ; of the arm, 15.3. Fore arm, 15.09. Of amputation at the hip-joint there were two cases with one recovery; and at the shoulder-joint 19 cases with 7 deaths, equal to 36.8 per cent. In this chapter, the subject of the excision of joints, is discussed, and we find that the author reports the particulars of four cases of excision at the knee and two at the shoulder; also two cases in which he adopted Barton's operation for the relief of angular deformity of the knee-joint by the removal of a wedge-shaped piece of bone.

Chapter ix is on aneurismal tumours and affections of the arteries and veins. The treatment of aneurism by compression directly over the tumour, is illustrated by two cases of very large subclavian aneurism in which the operation by the ligature was impossible. Dr. Warren adopted the novel method of pressure over the tumour, by means of a heavy weight in the form of a cannon-ball. In the one case complete obliteration of the artery resulted, and in the other a cure was effected by coagulation of the contents of the sac, which was followed by suppuration and sloughing, but terminated in the perfect cure of the patient.

Vascular and erectile tumours form the subject of the concluding section of this chapter, and there is reported a most remarkable case of erectile tumour, engaging the tongue, lower hip, lower portion of the face and neck, and extending down over the chest. The lip was ulcerated superficially, and there was danger of fatal hæmorrhage from erosion of some large vessels, It was deemed advisable to ligature the left carotid, which was done on the 5th Oct, 1845. This operation had a most marke-effect on the disease. The face became paler, and the ulcera-

tion on the lip showed a more healthy action. About one month subsequently the right carotid was ligated. The effect at first was nil, but shortly after the application of the ligature the pulse became labored and somewhat irregular, and he became drowsy. There was also experienced a feeling of faintness on any attempt to raise his head. The patient, however, made a good recovery, and three years subsequently he is reported to have been in good health; no pulsation could be found in either temporals. The angular arteries where they inosculate with the nasal branch of the ophthalmic gave a faint pulsation, but the functions of the brain had not in any way been disturbed. Two excellent coloured lithographs are given of this very remarkable case, taken before and after the operation.

Chapter x is on injuries and diseases of the nerves. This is a most interesting chapter, it contains the reports of some nine cases, several of which occurred from gun-shot injuries. These cases all bear out the observations of Roux, Syme, Paget and others, concerning the repair which takes place in nerve structure after even complete division of the nerve, either accidentally or intentionally. For instance, we find the report of three cases of intense suffering from facial neuralgia following the course of the inferior dental nerve, which had resisted all the means employed for their relief. Finally, it was considered advisable to remove a portion of the nerve, this was done, but in no instance did it afford more than temporary relief.

The other chapters are on tumours, gun-shot wounds, and miscellaneous cases; in this latter is considered penetrating wounds of the chest and abdomen; uip disease, spinal disease, injuries to the os coccygis; fractures of the base of the skull; wry-neck, and congenital fusion of the fingers; and, finally, we have a chapter on anæsthetics. The work is illustsated by some twenty engravings, five of which are lithographic plates, several being chromos in the highest style of the art.

The work contains a most interesting and highly instructive collection of surgical cases. They are the experience of one who in his lifetime was eminently practical. The cases are given simply and truthfully, and are very creditable as an evidence of surgical success.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Tumour of the Brain. — A case of cerebral tumour was admitted into the Roosevelt Hospital on March 31st, and died in the beginning of June. The history furnished by the patient was of marked interest. The history of the case was as follows: An unmarried woman, aged 23, entered the hospital March 31st, 1877, stating that five months previously she suffered from headache coming on the evening. The pain was located in the vertex and occiput, and was accompanied by photophobia in the right eye. Subsequent to the photophobia the vision became indistinct, or as she termed it, misty. Some time afterwards the vision in the left eye grew misty, but it was not preceded by photophobia. In ten days she became totally blind. There was a certain amount of anæsthesia in the right leg, and although there was no paralysis it seemed to be weaker than that of the other side. The right arm was slightly paralyzed but not to an amount readily appreciated. On May 1st deafness occurred in the right ear. There was also noticed anæsthesia in the left arm. The deafness increased and on May 31st it was complete. In a few days subsultus developed and the patient sank and died. At no time was vomiting a marked symptom, though periodically it appeared. The diagnosis of cerebral tumour pressing on the optic nerve was made by the house staff, and afterwards confirmed by the visiting physician. At the autopsy, a tumour the size of a hen's egg was found situated between the two anterior lobes of the cerebrum, pressing downwards and causing a slight bulging at the base of the brain. It was anterior to the thalamus opticus, and from the history of the case would seem to have involved first the optic nerve of the right and then of the left eye.—*New York Medical Journal, July* 1877.

Depressed Fracture of Skull—Recovery.—J. W., æt. 14, was admitted into the London Hospital on June 8th, 1873. He had been struck on the left side of the head by half a brick, which had been thrown at him by another boy; the blow staggered him, but he did not fall. He walked to the hospital—about a hundred yards—with the assistance of a woman. On examination a small laceration on the left side of the head was found over the squamous portion of the temporal bone, an inch above the ear. A portion of the temporal bone about the size of a three-penny piece, fractured above and depressed below, to the extent of about $\frac{1}{8}$ of an inch, was found. As this case seemed very similar to the one admitted a few days before, in which injury by a pointed body had caused a slight fracture of the outer table, and a more extensive fracture and depression of the inner table, it was thought advisable to examine the fracture, and, for this purpose, Mr. Rivington enlarged the wound, and found that its extent was not greater than that already described. The friends of the patient were informed of the nature of the case, and advised that it would probably be safer to remove a small portion of the bone in order that any loose fragments which might exist internally might be taken away. They would not, however, consent to any operation. The result seemed fully to justify the prohibition. The wound healed very speedily, and there was no unfavourable symptom, except on the 12th, when the patient complained of frontal headache, had a furred tongue, a temperature of 103·4°, and refused solid food. In a very short time these threatening indications entirely passed away, so that by June 26th the lad was able to attend as an out patient:—*Medical Times & Gazette* June 23rd, 1877.

Treatment of Acne Rosacea.—By Balmanno Squire, M.B.—A lady aged 45, residing in one of the Midland counties, had been affected with acne rosacea for about a year and a half, when she came up to London to be treated for it. She is approaching the menopause, that is to say, for the past two or three years her periods have been irregular. However,

her general health is apparently perfect, and she declares that she has always enjoyed the best of health. She is a brunette of sturdy build and hearty appearance. Her face is her only misfortune. This region presents not only the blotchy patches of discoloration which are characteristic of some varieties of acne rosacea, nor that copious sprinkling of minute pimples which represents another common phase of the disease, but rather what may be termed the tuberculous variety of acne rosacea—that is to say, the papules, or rather tubercles, are individually large; not that their sebaceous core forms any considerable portion of their bulk (as is wont to be the case in the indurated phase of acne juvenilis), but that the elevated induration which encloses the small core is notably developed. These tubercles (several of which are of the size of split peas), although they are mostly smaller, occupy very abundantly, the forehead, cheeks and chin, and also that portion of the skin of the neck which lies immediately under the lower border or "base" of the lower jaw.

She was treated with chrysophanic acid ointment as an external application to the face, and with glycerole of nitrate of bismuth as an internal remedy. No other remedy external or internal was used from first to last. She commenced treatment in January 19, 1877. On February 27, she presented herself quite free from any trace of her former eruption. I attribute the alteration she experienced purely to the action of the chrysophanic acid ointment. There was no indication whatever for the exhibition of bismuth; the patient's digestion was in no way out of order; but I was engaged at the time in making further observations on the effect of my glycerole of nitrate of bismuth, the preparations and physical properties of which have been fully described in this journal.

In the case of this patient, a dose of glycerole, containing 4 grains of the nitrate of bismuth, given three times a day for a few weeks produced no appreciable affect of any kind.

As to the ointment, it consisted at the first of twenty grains of chrysophanic acid dissolved in an ounce of lard, at the temperature of an oil bath. For the last ten days of the treatment, however, the strength of the ointment was raised to that of forty

grains of the acid to the ounce of lard. The ointment in either case was regularly, three times a day, rubbed well in all over the face, avoiding only the eyelids and lips. From the beginning to the end the patient never experienced any smarting from this energetic treatment However, occasionally the face became a little puffy, as if slightly swollen. Throughout the treatment the face became more or less stained by the action of the ointment, but it was not *very* much stained, the complexion of a field laborer about autumn time is often quite as dark as this patient's face was at any time of the treatment. The stain, proved of course, quite transient, passing away completely after a few days' discontinuance of the ointment. This acid is also a very serviceable remedy in the treatment of psoriasis . . . (*Medical Times & Gazette, June* 23, 1877.)

Vexatious Noises.—Everything that screams is a nuisance, whether it be a child or a peacock. Cock-crowing, particularly when there is a second animal in the neighbourhood to take the challenge and respond, is an intolerable nuisance to sensitive ears. Howling dogs, yelping and barking curs, fall under the same category, and the poor organ-grinder acts as bandmaster to the procession of brain-worriers and heart-vexers. Many, if not nearly all, of these sources of annoyance and injury might be removed or reduced if only it was possible to put some genial construction on the quasi-legal maxim that an Englishman's house is his castle, and within its precincts he may cherish anything, from a rattle snake to a pestilent fever, provided only he has the means to procure strict independence.

Indictments may, of course, be lodged, and in due time will be heard and and administered in cases where a great nuisance is created, but the complainant makes a bitter enemy of his neighbour and this is a new source of vexation few like to court. Get rid of the castle theory and much of the grievance will go with it. Householders have clearly no moral right to ignore the comfort of those who live within earshot, or so near as to be annoyed by their pets. This is a world in which overcrowding

makes it desirable to give, as well as to take, a little elbow-room when the opportunity offers. In the name of the sick and suffering we appeal to the good sense of the community to discountenance the habit of utter selfishness which induces, or enables, otherwise inoffensive persons to disregard the feelings and happiness of their neighbours.—(*London Lancet June 23rd*, 1877.)

Dangerous Prescriptions.—Some cases are mentioned in our exchanges in which corrosive sublimate has been dispensed for calomel in consequence of either prescriber or dispenser being unable to follow the changes which have been made in the nomenclature of these two chlorides. We have always doubted the propriety of a pharmacopœia attempting to follow the shifting views of chemical theory. A name for a drug need not be chemically correct. A worse case is reported in which *hyd. chlor.* was written by a physician who intended it for hydrate of chloral. Corrosive sublimate was dispensed, and the patient nearly killed, life being saved by vomiting occurring immediately on swallowing the poison, and timely aid. A critic who pronounces the physician's act a blunder, and the dispenser's worse, says the rule should be religiously observed never to abbreviate those words but to write them in full *hydratis chlorali*, or else put it in English. Now the word *chloral* is not declinable in Latin, and should, moreover, precede *hydratis*. Its proper position would render such another blunder less likely, and should therefore be assigned to it, and we hope critics will not generally violate grammar by adding terminations to undeclinable nouns.—(*The Doctor*, July, 1877.)

The Galvano-cautery for Enlarged Prostate.—By Dr. E. Bottini.— Dr. Bottini advocates the reducing of enlarged prostate gland by cauterizing it or incising it with a thermo-galvanic cautery. From this mode of treatment he has had the best results and he details several successful cases. He either destroys the new tissue by galvanic cautery or incises it with a knife heated by galvanism, and introduced through a catheter.

Cauterization.—He cauterizes the enlarged gland by means of an instrument specially constructed for the purpose. This instrument is shaped like a short-beaked sound, and contains the galvanic apparatus. This apparatus is exposed by an opening in the instrument near the angle of the beak, and is connected with the battery by wires passing through the length of the instrument. When the instrument is placed in position the cautery is pushed down till it comes to the opening just above the angle of the beak, and this opening, of course, should be opposite the place it is intended to cauterize. To apply the cautery to an enlarged prostate the instrument should be introduced so far that the beak may move freely in the bladder, and so enable the operator to cauterize equally all round. From experiments first tried on the dead subject, he found that the beak of the sound (which was in the bladder) was never heated by the cautery; in fact the cautery was heated to a white heat and freely cauterized the prostate through the slit in the instrument. Every other part of the instrument remained quite cool. The patients do not complain of much pain during the operation, and, as a rule, the hotter the cautery the less pain. The cautery should not be at more than a red heat. At one sitting Dr. Bottini professes to destroy the enlarged prostatic lobe which prevents the urine escaping, even if it be of large size. The slough begins to come away on the third day and is passed in small pieces with the urine. If the first operation does not give free passage to the urine, wait for twenty days before performing another.

Thermo-galvanic Incision.—The instrument used for this differs from that used in cauterization, in that a knife which can be readily protruded, replaces the cautery. This knife is in reality a cautery, only having a different shape, and it can be protruded or drawn back through the slit in the instrument, which is situated, as before remarked, just above the angle of the beak. Incisions can thus be made as required. Generally, immediately after this operation the patient can empty his bladder readily, then strangury comes on but this is quickly relieved by belladonna and opium suppositories and disappears in a few days.

Indications for the Operation.—Where the middle lobe of the prostate is enlarged and acts as a valve preventing the urine escaping. Also, where the gland is uniformly enlarged and interferes with the free passage of the urine, &c.

Contra-indications.—Paralysis of the bladder in all cases where there is serious disease of the bladder. Inactivity of the bladder. Disease of the kidneys, &c.

Dr. Bottini says as a result of his experience, in no operation did any noticeable sign of traumatic reaction follow. In none was there any hæmorrhage, and in all cases diuresis was established.—(Condensed from the Archiv. f. Klin. Chir. v. Langenbeck. Bd. 21. Hft. I. 1877.)

Polypus growing from the Septum of the Nose.—A girl aged 15, had been troubled with obstruction of the left nostril and epistaxis for four months. This was found to be due to a pedunculated polypus growing from the septum. In January it was removed under chloroform, and now there is no sign of disease. Polypus growing from the septum is very rare; this one measured over half an inch by one third: it was very vascular, and ulcerated on the surface. Structurally, it consisted of a large number of vessels and adenoid tissue, with many lymph cells. — *British Medical Journal*, June 1877.

Cervical Chorea. — An elderly man presented a curious lateral oscillation of the head and neck but no general paralysis agitans; he also complained of want of sleep. This has been his condition for three years. Dr. Radcliffe's method of hypodermic injection of arsenic was tried, five minims of liq. arsenicalis being injected into the neck. This produced no good effect; and troublesome local boils and suppurating sores resulted, which have been healed with difficulty. This plan Dr. Moxon has tried in three similar cases, in all with a like unsatisfactory result, and now considers the plan useless and unsafe. Bromide of potassium has much benefitted the patient; the muscular movement is less, and sleep is now good.—*British Medical Journal*, June, 1877.)

Ingrowing Toe-nail.—Dr. C. G. CLARKE, formerly of Indiana, writes us:—When in Indiana, some time since, I found a practice in vogue among those of the country people who were troubled with "ingrowing" of the edges of the toe-nail, which I give for the benefit of your readers who may not already be acquainted with the plan. It consisted, simply, in scraping with the point of a sharp knife, a longitudinal line along the middle of the whole nail and almost to the "quick." By this means when the boot presses on the nail the latter gives in the centre, and thus tends rather to lift the edges of the nail than to press them into the toe. I have tried this plan in my own case with the happiest results; and as I do not remember ever having seen it mentioned in print, I give it for what it may be worth.—*Ibid.*

Carelesss Ovariotomy.—A case of rather peculiar nature, which occurred at the Alfred Hospital, Melbourne, has given rise to considerable discussion among the profession at the antipodes. It was that of a woman operated upon in the hospital for ovarian disease, and in whose abdomen after death, a sponge and a pair of small bull-dog forceps, were found. The Australian Medical Journal reproduces the report of the Hospital Committee, and gives a long account of the inquest held on the exhumed body of the patient.—*Phil. Med. & Surg. Reporter.*

Case of Supplementary Axillary Mammæ.—On the evening of Sunday 11th March, Mrs. H., æt. 35, was delivered of her third child. On the following Wednesday forenoon, I visited the patient for the first time, when my attention was directed to two swellings in the axilla, each about the size of a goose egg, and lying parallel to the margin of the pectoralis major muscle. They were completely isolated, and no connection could be traced between them and the mammæ proper. They were exceedingly tender to the touch, and on making examination, felt exactly like the mammæ distended with milk, the glandular structure being easily made out. Unlike the case of mammæ succenturiata, reported by Dr.

Matthews Duncan, there were no apparent external openings. On making subsequent examinations at different times, I found that they varied in size according to the amount of lacteal engorgement, and lessened when the child was applied to the breast and sucked vigorously, afterwards increasing as the milk secretion returned. From the time the patient got out of bed and began moving about, they gradually and permanently diminished in size; and on the 14th of April, five weeks after accouchement, when I last saw the patient, all traces had disappeared. She, however, informed me that, if for any reason the child had not sucked during the night, the swellings were still discoverable in the morniug. . . . The patient had similar swellings at former confinements, and her sister was similarly affected whenever she was confined. . . . (O. H. Garland, M.B., *Edinburgh Medical Journal*, *July* 1877.)

The artificial nourishment of Infants. The list of Infant's nourishment embraces mother's milk, cow's milk, condensed milk, Liebig's, Nestle's food, and like preparations. These Professor Dusch recommends should be mixed with water gruel; 4 parts of gruel to 1 part of cow's milk. Where good fresh cow's milk cannot be obtained, he recommends condensed milk in the proportion of one part to twenty of water gruel. . . . . Liebig's extract of beef made into a soup is often very good for newly born children, if properly prepared. Prof. von Dusch does not tell us what to use if neither cow's milk, cream, or condensed milk can be procured.—(Aerztl. Mittheil Baden, 1876.—Quoted in *Schmidt's Jahrbücher*. Bd. 173. No. 1, 1877.)

Cholera Infantum.—Dr. Z., compares cholera infantum to acute poisoning with which it has many symptoms in common. He says most cases of cholera infantum are caused by a fungus got from impure cow's milk, or perhaps from unclean water in which the nurse carelessly bathes the child, &c. As a remedy for it he recommends very small doses of carbolic acid, but he does not state the amount of success he has met with by its use.—Dr. Zechmeister in *Wien. Med. Presse.*)

Extirpation of the Kidney.— Mr. JESSOP on the 7th ult., at the Leeds Infirmary, removed the left kidney from a child, aged two years and three months, suffering from a rapidly increasing tumour, apparently malignant, in the left renal region. The incision was similar to that recommended for colotomy, but longer. When the diseased mass was reached the kidney was peeled by means of the fingers, and a whip-cord ligature was passed around the vessels, and ureter, and firmly tied. The remainder of the growth was afterwards stripped, and the whip-cord left to drain the wound. The operation was a formidable one owing to the large size of the diseased organ and the free venous hæmorrhage which followed the separation of the growth from the surrounding structures. When removed the kidney weighed sixteen ounces, and was encephaloid in appearance. The child was doing well on the 11th inst. There was no peritonitis, the bowels acted freely, and the urine flowed abundantly, and was not stained. There was no vomiting, the temperature was but little above normal, and the child partook freely of milk.

Ergot in Atony of the Bladder.—PROF. VON LANGENBECK, at a meeting of the Berlin Medical Society (*Medical Times and Gazette*), stated that in atony of the bladder, associated with enlarged prostate, in elderly men, in which the organ is never completely emptied of urine, he has lately tried the hypodermic injection of ergotine with most surprising results. In three cases the contractile power was at once increased so as to enable the patient to discharge additional urine, and in a few days it had so augmented that very little urine was left behind. After one or two injections the improvement was considerable, and even a diminution in the size of the prostate seemed to have ensued. Dr. Israel said that he had derived the same benefit from the employment of ergotine, and referred to the case of a patient who was thus enabled to hold his water for three hours, whereas before he voided it every ten minutes.

Hydrobromic Acid in Tinnitus Aurium.—(LENNOX BROWNE, F.R.C.S., Edin., Weymouth Street).—The following case, selected out of several (from notes by my senior clinical assistant,) Mr. Douglass Hemming, of the successful treatment of long standing tinnitus aurium by hydrobromic acid, well illustrates the principles laid down by Dr. Woakes in the *Journal* of June 23rd. I commenced using hydrobromic acid in tinnitus immediately after hearing Dr. Woakes's remarks at the meeting of the Harveian Society. It will be seen that in this case the tinnitus was of the knocking or pulsating kind, and therefore probably due to a congested condition of the labyrinthine blood-vessels. In other cases in which the tinnitus was of a continuous roaring or rushing character, the administration of hydro bromic acid had no beneficial effect.

J. S., aged 34, applied at the central London Throat and Ear Hospital on May 11th. He had been deaf and had loud "thumping" noises in the head for twelve years. There was no history of otorrhœa. On examination, the meatus of each ear was fairly healthy; hearing power was extremely defective; voice was only heard when much raised, and the watch not at all; the tuning fork was heard on the mastoid process. The tinnitus was complained of as the most distressing symptom. He was ordered benzole-inhalation, and hydrobromic acid in fifteen-minim doses three times a day. On June 4th, he reported that the noises had quite stopped. and said that his ears felt much clearer and more healthy since taking the medicine."—June 11th. There was no return of tinnitus.

A similar successful result has attended the administration of this drug to a young lady aged 22, suffering from a sense of continuous pulsation in the right ear and deafness, the watch being heard only on contact. The hydrobromic acid entirely removed the distressing tinnitus.

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1877.

CANADIAN MEDICAL ASSOCIATION.

We would remind our readers that the Canadian Medical Association will hold its annual gathering in this city on Wednesday the 12th September next. We believe that suitable preparations are being made for the reception of the Association. and it is expected that there will be a large and influential meeting. We have been informed that many very important papers will be forthcoming. This will add very greatly to the interest of the meeting, and will, we hope, prove an abiding feature of these gatherings. Arrangements will be entered into with the various railroad and steamboat companies to carry members to and from the meeting at reduced rates.

We are unable to state officially, as we do not happen to be behind the scenes, but we have been informed that a number of gentlemen from the neighbouring Republic are expected to be present at the meeting.

We suppose that the Association will divide up into sections as there have been quite a number of papers on various subjects promised. If these promises are realized this will be the most important and interesting meeting that the Association has held since its organization in 1868.

COLLEGE OF PHYSICIANS AND SURGEONS OF THE PROVINCE OF QUEBEC.

Pursuant to advertisement the College of Physicians and Surgeons of the Province of Quebec, held the Triennial Meeting which would have taken place under the old act, and which it was presumed the College had a right to hold under the new, at the customary place, the town of Three Rivers, on Wednesday, the 11th July last. Several very important questions came up for discussion, but anything like cool and deliberate argument was not permitted. The meeting contained a number of noisy persons who completely forgot that they enjoyed the privileges and position of gentlemen. A stranger would have supposed that he had fallen amongst a lot of roughs who came prepared for a fight. The noisy declamation, the interruption of speakers, the attempt to crush out discussion, the grotesque absurdity of demanding that every speech should be in French, *en Français ! en Français ! !* shouted by a babel of voices, was very humiliating, and had to be patiently endured by the more reflecting and sedate members, who sat in silent amasement, not unmingled with disappointment and disgust. Such was the first meeting of the Profession of this Province under the new act, at which all the privileges of membership were accorded to all legally qualified practitioners. We are pained to make these remarks, but we were outraged by the character of the proceedings of that meeting.

We are Canadian by birth and education, our forefathers were English, and we are quite satisfied with the traditions of the old soil. But we still regard, and ever have regarded Canada as our home, our country, of which we have no reason to be ashamed. And if at any time politically we separated from the mother country, which, by-the-way, we should sincerely regret, and by all legitimate means oppose, we should still be satisfied with the name Canadian.

Our country occupies a very considerable space on the World's surface, but as a people, numerically, we are, in comparison with other nations, a mere unit. We cannot afford to split up into

little factions, to draw distinctions between French Canadians and British Canadians; all who indulge such sentiments must possess narrow, contracted ideas, and cannot have at heart the aggrandisement and prosperity of their country. To perpetuate the animosities and traditions of the past may be indulged in by political tricksters for party purposes, but it cannot lead to harmony and unity of purpose, it cannot strengthen our hands as Canadians, nor will it command that respect which is our due from outsiders. As professional men a continuance of these disputes must lessen our influence and usefulness, and will tend to rob us of that respect and consideration which has hitherto been accorded to us. With these few introductory remarks we will proceed to give the results of the meeting.

The meeting was a large one, upwards of 150 persons were present.

The President, R. H. Russell, M.D., took the chair, and opened the proceedings by calling the meeting to *order*. The minutes of the last meeting were read by the Secretary for the District of Quebec, Dr. Belleau. These were duly approved.

The President then gave the annual address, but as it appeared not to concern any person in particular, the constant hum of voices quite precluded the chance of its being heard. A Committee on Proxies was named to consist of Dr. Howard, Dr. Rottot, Dr. Rinfret, Dr. Robitaille and Dr. Worthington.

The Registrar, Dr. Fenwick, submitted to the meeting that Dr. Lemieux, of Quebec, who held sixty-seven proxies from that city and District, was not eligible to vote, and he refused to qualify by the payment of back dues owing by him to the old college. The Registrar pointed out the xxx clause of the new act, whereby "the College of Physicians and Surgeons of the Province of Quebec, is hereby vested with all rights, powers, privileges, property and assets heretofore belonging to the College of Physicians and Surgeons of Lower Canada." And also the xxviii clause, whereby "all by-laws rules and regulations heretofore made by the said College of Physicians and Surgeons of Lower Canada, shall remain in force until repealed or modified under the provisions of this act." From these two clauses he

held that all members of the old college must pay up their back dues to entitle them to vote at this meeting. He explained that with very few exceptions, the members had complied with this rule, and he sought for an explanation of the law in this respect. After some discussion it was ruled that all persons who held the license of the college, and who paid their registration fee and their annual contribution, were eligible as voters. The Registrar asked what he should do with moneys that had been paid to him by old members of the college for back dues,—should these moneys be remitted? he was instructed to await the action of the Board of Governors at its first meeting in September next.

Dr. Lemieux submitted several proxies that had been made out in the name of Dr. James A. Sewell, of Quebec. Dr. Sewell was not present, but he had authorized Dr. Lemieux to vote for him. It was ruled that in the absence of Dr. Sewell, Dr. Lemieux could not vote on proxies made out in that gentleman's name. The vote was then taken, and six scrutineers were appointed to receive and count the same, and the meeting adjourned till six o'clock. On reassembling at that hour, it was found that there still remained several hours of labour for the scrutineers before any return could be made, extra scrutineers were selected to assist in the labour, and a further adjournment took place. About one o'clock in the morning the following announcement of those elected was handed in:

For the City of Montreal.

Dr. Howard,	Dr. David,
" Fenwick,	" F. W. Campbell,
" Peltier,	" Dagenais,
" Rottot,	" Lachapelle.

For the District of Montreal.

Hon. Dr. Paquet,	Hon. Dr. Church,
" Perrault,	" Gibson,
" Turcot,	" Rivard,
" Mignault,	" Lafontaine,
" Ladouceur,	" Ed. Laberge,

Dr. Prevost.

For the City of Quebec.

Dr. Lemieux,	Dr. Marsden,
" Sewell, J. A.,	" Larue,
" Belleau,	" Ahern,
" St. George,	" Wells.

For the District of Quebec.

Dr. Michaud. Dr. Gingras,
" Marmette. Hon. " T. Robitaille,
" Tetu, " Rousseau,
Dr. Collette.

For the District of St. Francis.

Dr. Gilbert, Dr. Worthington,
Dr. Paré.

For the District of Three Rivers.

Hon. Dr. Ross, Dr. E. Baldeau,
Dr. Desaulnier.

The meeting then adjourned till the following morning at nine o'clock.

THREE RIVERS, July 12th, 1877.

Pursuant to adjournment, the meeting of the Governors took place at the hour of nine o'clock A. M. for the purpose of electing, by ballot, the officers for the ensuing term of three years with the following result:

President: J. P. Rottot, M.D., of Montreal.

Vice-President for the District of Quebec: Dr. Lemieux, of Quebec.

Vice-President for the District of Montreal: Dr. R. P. Howard, of Montreal.

Secretary for the District of Quebec: Dr. Belleau.

Secretary for the District of Montreal: Dr. Dagenais.

Registrar and Treasurer: Dr. Larue, of Quebec.

The President elect took the chair and thanked the meeting for the honour of his election.

It was then moved by Dr. Marsden, seconded by Dr. Gilbert,

Resolved,—"That the following gentlemen be a committee to prepare a code of by-laws and regulations for the College of Physicians and Surgeons of the Province of Quebec, in conformity with the Medical Act passed at the last session of the Provincial Legislature, in addition to those passed at the last Semi-annual Meeting of the College, and in amendment to those hitherto existing. Said code to be submitted for consideration and adoption at the next Semi-annual Meeting of the Board of Governors of the College, to be held at Quebec, in September, 1877, viz.: the President, Drs. Marsden, Howard, Lemieux and Lachapelle."

It was then moved by Dr. Laberge, seconded by Dr. Dagenais,

Resolved,—"That the rules and regulations to be adopted in lieu of those already in force shall be printed and distributed amongst the members of the pro-fession at least fiteen days before the next meeting of the Board."

It was then moved by Dr. Gilbert, seconded by Dr. Fenwick,

Resolved,—"That the President be requested to appoint the High Constable in each district, or some other person as he may deem expedient, to act on behalf of the College of Physicians and Surgeons of the Province of Quebec for the purpose of prosecuting all unlicensed persons who may be practising the profession of Medicine and Surgery."

It was moved by Dr. Fenwick, seconded by Dr. Peltier, and

Resolved—"That the prosecuting officers appointed by the College shall have allowed to them the whole of the penalties recovered from unlicensed practitioners."

The Treasurer was authorised to pay the bill incurred for lunch and supper for the scrutineers, and was also ordered to pay the care-taker of the City Hall the sum of ten dollars.

Votes of thanks were passed to the retiring officers, and also to the Mayor of the City of Three Rivers for the use of the City Hall.

The meeting then adjourned.

THE PROVINCIAL LUNATIC ASYLUM, P.Q.

The paper which we published in the March number of our Journal from the pen of Dr. Henry Howard, Medical Superintendent of the Provincial Lunatic Asylum, of this Province, and which contained some practical hints on the subject of Insanity, has been copied into the pages of several of our exchanges. Dr. Howard has had considerable experience as an alienist, and has taken advantage of his position. We regret to have to observe that he is, in our opinion, overworked. He is the sole medical attendant in charge of the Asylum at Longue Pointe, which we understand contains some 800 inmates. We trust the Government will see their way to give our old and valued friend an assistant.

Medical Items and News.

Mr. Simon (in the *Chicago Medical Journal and Examiner*,) states that he instantaneously cured a case of hiccough, which had lasted twenty-six hours by the inhalation of three drops of nitrite of amyl.

A Bohemian paper, the *Koruna Czeska*, reports from Podiebad, that a child six weeks old, heving been laid on the grass by its mother while she was engaged in field labour, a lizard crept through its open mouth into its stomach. It is further stated that, after medical treatment, the animal was discharged per anum. The medical contemporary from which we quote, rightly suggests that a professional report of so incredible a case would be desirable.—(*Brit Med. Journal.*)

Dr. Ord, Senior Asst. Physician, has been appointed Physician to St. Thomas' Hospital in the vacancy caused by Dr. Peacock's retirement.

Dr. T. R. Fraser succeeds Sir R. Christison to the chair of Materia Medica in the Edinburgh University.

Mr. Bowman and Mr. Critchett having attained the limit of age (sixty) have been appointed Consulting Surgeons to the Royal Ophthalmic Hospital, Moorfields. Mr. Warren Tay and Mr. James Adams have been appointed Assistant Surgeons in the vacancies thus produced.

Mr. Simon is to have a testimonial, it is take the form of a marble bust, to be presented to the College of Surgeons.

The following note was handed in to the out-door physician at the Montreal General Hospital last month: "Symptoms of Sickness—Strong hiccup—Stomach-ache with bad digestion—Strong Belly ache in time of coarses (sic) aching on the left side and most continually dizeness.—Age 21 years.

Obituary.

We regret exceedingly to hear that EDWARD G. HENDERSON, M.D., M.R.C.S., E., one of McGill's most promising graduates, died July 3rd, at Belleville, Ont., after two days's illness.

CANADA
MEDICAL & SURGICAL JOURNAL

Original Communications.

THE LATE RIOTS IN MONTREAL,

VIEWED FROM A PSYCHOLOGICAL STAND-POINT,

By Henry Howard, M.D., M.R.C.S., Eng.,

Medical Superintendent of the Provincial Lunatic Asylum.

Read before the Medico-chirurgical Society, of Montreal, Aug. 17, 1877.

Mr. President and Gentlemen.—Were I to attempt to enumerate all the advantages to be derived from the study of science, and more particularly from reading the writings of the men of the present day, it would occupy too much of my time, and I am sure it would only weary you. Moreover I am sure you know all the advantages just as well as I do, therefore my task is the easier, that I have to address myself to a body of such scientific men as is the Montreal Medico-Chirurgical Society. To make myself, however, the better understood, there are some results that I must particularly draw your attentio n to. The study of science enlarges a man's view of men and things, it destroys in him selfishness, and all fanaticism ; it takes him, as it were, out of himself, so that he can deal with all questions in a broad and liberal spirit, it makes him also slow to f orm an opinion, or pronounce judgment till he has well examined the question before him from a metaphysical basis, and then he will only draw his conclusions from logical reasoning, founded upon experience.

This is the course I have adopted, before coming before you this evening to try and explain on psychological grounds the *cause* of the unhappy troubles that have so lately brought disgrace upon our city, and which have left such evil results behind them.

Were the question to be examined from a religious stand-point, the occurrences that took place would be totally incomprehensible to any intelligent man no matter what his religion might be, (an educated Hindoo, for example) from the very fact that all those who were directly or indirectly the cause of all those disturbances, no matter how much they differ in doctrinal points, all call themselves Christians, they all profess that their religion teaches them to offer no insult to any man, to give no man cause of offence or scandal, to love their neighbour, and have charity one towards another; so that from a religious stand-point to the intelligent man, the whole proceeding would be totally incomprehensible, we can well imagine our educated Hindoo, looking upon Christianity, to be a religion whose followers murdered one another for the love of God. And if, Gentlemen, these riots are incomprehensible from a religious stand-point, how much more are they incomprehensible from a national stand-point, seeing that all the actors were of the same nation, a people that, moreover, are always boasting that they are the most civilized, and intelligent people of peoples, the very cream of nations? therefore, gentlemen, upon national grounds, these troubles are incomprehensible. How then are they to be explained? We are, of necessity, forced to fall back upon science to try in some degree, at least, to comprehend why Christian men of the same nation, will murder each other for a sentiment, for that it was sentimentalism on both sides, I am sure every scientific man will admit without any proof from me.

In previous papers read before this Society I endeavoured to establish the fact, that man was naturally the most destructive of all animals, for while other animals destroy that they may live, man destroys for the very pleasure he derives from destroying. Take, for example, the sportsman, who is generally the very best sample of the animal man, and we find whether shoot-

ing or fishing, that he is not content when he kills as many birds or fish as he can take away with him, but he keeps on killing for the very pleasure it affords him. Well, we must not blame him, he is only acting after his kind ; and such a man is generally satisfied to kill animals, birds and fish; he very rarely takes pleasure in killing men. For my own part I admire the jolly sportsman; he is generally a man of both physical and moral courage, a man that will not condescend to mean, petty acts.

Gentlemen, there is a question that suggests itself to us, looking at men from a psychological stand-point, and that question is, is man naturally homicidal ? Looking at the history of the past, judging from our every day experience, seeing the homicidal tendencies of the insane, who have no reason to guide them, I am afraid we are forced to the conclusion that man is naturally homicidal. I see no way of avoiding this conclusion except we admit the theory, that there are animals who have all the appearance of men, but are not so in reality, but simply brutes, because they lack the essential qualities of men, in not possessing either intelligence, or an immortal soul. Of course if we were to accept this theory there would be no longer any difficulty in our way, but until science can prove this theory to be correct, we are obliged to look on all that are born of woman, and who have the outer semblance of men, to be men ; and this is the only tenable stand-point we possess ; we are bound to admit that man is not only the most destructive of all animals, but that he is naturally homicidal, and is only the contrary in virtue of his strong reasoning powers, and the result of his early surroundings and education. In a previous paper read before this society I pointed out to you that whatever a man's nature was, whether good or bad, he was not responsible for it, it was his inheritance. I pointed out the same with respect to his mental organization, that no two persons were alike in this respect no more than they were in their physical appearance, and that no man could think with another man's brains any more than he could breathe with another man's lungs ; that consequently, when men came to think like each other it was the result of external circumstances. When then we find men homicidal we know they are

acting according to their nature, not having sufficient strong reasoning powers to overcome their evil tendencies, and in this they bear a close resemblance to the maniac, who through disease as been deprived of his reasoning power, and is merely guided by his instinct, and all the evil propensities with which he has been born come out in full vigour. On the contrary when we find a man not prone to homicide, we find a man of strong reasoning power. A man who is blessed with such a brain, that he can by the force of his will break down his evil propensities.

Now, how are we to diagnose those two classes of men in every-day life. It is not very difficult. The man of weak mind and homicidal tendencies is generally a boasting noisy fellow, trying to conceal his moral cowardice by blustering and bullying. He is the subject of the most extraordinary illusions and delusions, he fancies that every woman who treats him with common politeness is in love with him, in fact that all women are in love with him, that he is a regular "*Don Juan.*" Then he labours under the delusion that the majority of mankind are his enemies, that every one is plotting against him, that every one is jealous of him, or of his horse, or his dog, or his cat, that he must be always on the watch to defend himself, that he cannot go out without his revolver, with which he frightens his mother, sister and lady friends by assuring them, playfully, he has it in his pocket, and that he will shoot down the first man that interferes with his rights, or that tries 'by force,' to make him a slave. He talks and blows about rights without having the slightest intelligent idea of what constitutes rights, not even understanding that no man has any rights without corresponding duties. He is a man who is everlastingly thrusting himself into other people's business and giving his opinion unasked. A man who is always rushing into danger, because "God wot," he has not sufficient brains to keep out of it. "Fools rush in where angels fear to tread." These are the true characteristics of your man of homicidal tendencies, who, like an epileptic maniac acting from impulse will not be content until after he has become a homicide. Society should be always on their guard with such men, and

laugh or frown down their foolish pretensions. They are not men that any sensible man can lose his valuable time reasoning with, you had far better go down to the Asylum and reason with the lunatics.

On the other hand, the strong-minded, upright, honourable man who carries a level head upon his shoulders, the man who never means to offend any man, goes his way calmly attending to his daily business without fear or thought of fear, without thinking that any man would dream of insulting him or offering him injury, a man that would most carefully go out of his way to avoid an unseemly quarrel, a man that would be ashamed to be seen within a mile of a street row, a man of peace and a man of "good will;" a man loved and respected by all whose love and respect is worth having.

Our weak-minded men, of homicidal tendencies, in Montreal, appear to become partially insane twice a year, about the 17th of March and the 12th of July. In March a bit of green ribbon sets one half off in a tempest, in July a bit of orange ribbon sets off the other half; at other periods of the year these colours take no particular effect upon them. But you will say what has already been said by many others, that at those periods of the year these men should control their mad impulse; remember I have said that they are men of weak minds, men void of reasoning powers, if they could control themselves they would be, not weak-minded but strong-minded men. Those men cannot help it, they act after their kind, they are what they were born, and their instincts have been intensified instead of modified with their early surroundings and education; moreover their worse passions are stimulated every day by political demagogues and knaves; poor fellows they deserve more pity than censure.

From what I have already said you must at once perceive what conclusion I must come to with regard to the riots in Montreal in the month of July, and which no man can regret more than I do. Looking at it from a psychological stand-point it becomes comprehensive on the assumption that all and every man, that had act or part, directly or indirectly in the proceedings, on either side, except the men of peace, were men of weak intellect,

men of badly balanced brains, men for the time being, at least, void of all reason, men whom, if they ever meet with suffering, will in all probability find their way into a lunatic asylum: men who, although they may be excused because thay acted according to their nature, yet are they dangerous to themselves and to all social order, therefore they should be carefully watched over by the intelligent class of society, who should keep them within proper bounds, and make them understand that no more such nonsense would be permitted, that society would have no more of their sentimentalism, in fact, such men should be, as I have already said, frowned down by society.

It is hardly necessary for me, gentlemen, to assure you that in the remarks here made I have meant nothing personal to any man or any body of men; I could not, for even now, I do not know the names of any of the actors, with the exception of those whose names have appeared in the press. Moreover, I would not knowingly or willingly offer insult to any man or body of men in the world, as I should expect that no intelligent man would offer insult to me.

PHLEGMASIA ALBA DOLENS,

By J. D. Cline, B.A., M.D.,

HOUSE SURGEON, MONTREAL GENERAL HOSPITAL.

(Read before the Medico-Chirurgical Society of Montreal.)

Phlegmasia alba dolens is an affection of great clinical interest. Though the name is generally understood as meaning an affection of the puerperal state, it applies equally well to the same morbid condition occurring under many other circumstances.

Trousseau speaks of it as always having "as its primary cause, a special alteration of the blood, an alteration which exists in the puerperal state, and many cachexiæ." This change in the blood he says, consists in a "diminution of the red globules, and increase of fibrin and serum," a condition which predisposes the blood to coagulation very readily, if these co-exist with any

cause of retardation of the venous current. This cause of retardation does exist in the case of the cachexiæ, in the lowered vitality and feebleness of circulation.

It occurs frequently in the stoppage of convalescence from many acute diseases, as the specific fevers, and notably after typhoid fever, and is very common in the tuberculous and cancerous cachexiæ. Trousseau attaches special importance to the frequency of its occurrence in the cachexiæ of cancerous disease, and regards it as of great diagnostic value in obscure abdominal affections, accompanied by a cachectic state, "which is not due to the tuberculous cachexiæ or the puerperal state." He speaks thus positively: "In cases in which the absence of any appreciable tumour made me hesitate as to the nature of a disease of the stomach, my doubts were removed, and I knew the disease to be cancerous, when phlegmasia alba dolens appeared in one of the limbs."

I have several times seen phlegmasia dolens occur in typhoid fever, not always as a sequela, but sometimes as a complication of the acute stage of the disease. The following are brief notes of a recent case:

F. G., æt. 30, a stout, strongly-built sailor, was ill in the Montreal General Hospital with typhoid fever. On Nov. 14th, 1876, the 28th day of the fever, I find the following note: "Patient took a sudden sharp pain in the calf of his left leg yesterday. To-day the pain and tenderness extend up the thigh along the course of the femoral vessels. Ordered a hot fomentation to the thigh, and pulv. Dover gr. x at night.

Nov. 15th.—Left leg a little swelled to-day. The large veins in Scarpa's triangle can be felt hard and knotty, and are tender. Pressure here and there on the calf causes a good deal of pain. The superficial veins in the calf are enlarged. Temperature, ranges from 98°, in the morning, to 100° in the evening. I may mention that he had not had a normal evening temperature yet, and this affection of the veins did not appear to alter the course which the fever was running.

19th.— Swelling of the leg going down, and tenderness disappearing.

25th.—Ordered a bandage to the leg, the fomentation being stopped. About this time the patient had retention of urine from a stricture which he had not told us of before, and he has been in the hospital ever since till June 11th of this year, when he was discharged. The left leg still swells when the patient walks. The swelling is unaccompanied by pain.

This had been a mild case of fever.

Another case in which I saw the occurrence of thrombosis of the femoral vein, the right one, I think, in the second week of the fever, was also mild.

In the hospital at Basle 31 cases of thrombi in the veins of the lower extremity occurred among 1743 typhoid fever patients, the majority being men. According to Liebermeister, it has little prognostic significance, usually terminating in recovery. Only two cases out of 31 proved fatal.

The next ten cases of which I have a note occurred in the advanced stage of cachexia, one tuberculous and the other cancerous.

J. F., æt. 35, was admitted into hospital on Dec. 1st, 1876, in an advanced stage of phthisis, having signs of extensive softening of both lungs. He died on January 15th. About two weeks before his death, he one day complained of a severe pain in the calf of the left leg. On examining it I found the calf swollen and tender, and a very tender line over the popliteal vein. On the following day the foot was swollen and œdematous and the calf was more tender with enlargement of the superficial veins. At the autopsy I examined the popliteal region, and found a hard thickened cord in the middle of the space, which was indurated cellular tissue around the vein involving in it the artery. I removed a piece of this indurated cord showing the popliteal vein, and a large branch opening into it both filled with a dense fibrinous plug, and the artery firmly connected with the vein by the dense inflammatory tissue. The fibrinous plug is not adherent to the wall of the veins.

P. H., æt. 28, was admitted into hospital on Oct. 18th, 1876, with a large abdominal tumour, irregular in shape and hard, which was diagnosed as cancerous. He was in a very advanced

cachectic condition. He left the hospital on Nov. 3rd, and died about a week after. While he was in hospital he had thrombosis of the right and left femoral, consecutively, with the usual symptoms, pain, tenderness, hardness, &c. The feet and legs below the knee had been œdematous before. There was no autopsy.

In these three cases which I have reported we have the blood crasis of which Trousseau speaks, with the mechanical retardation of the venous current in the lowered vitality and feeble hearts. We have the same conditions with perhaps a less degree of blood dyscrasia in the following case:

M. N., æt. 50, was admitted into hospital on Feb. 7th, suffering from obstruction of the bowels from fæcal impaction. She was an energetic woman, and had up to time of her illness followed her occupation of nursing, but was pale and had a weak heart, with a rapid feeble pulse. The abdominal symptoms were very severe for several days, and left her greatly prostrated. After all the abdominal symptoms had disappeared she one day complained of pain in the calves of both legs. On examination both feet were found to be œdematous, the calves tender, and the course of the popliteal veins tender. The tenderness in the right leg afterwards extended upwards along the greater part of the femoral vein. There was an elevation of temperature coincident with this affection of the veins. In the course of a week the tenderness disappeared, and the œdema of the feet and legs was becoming less, when an acute inflammation of the kidneys set in accompanied by œdema of both legs, without any tenderness. The patient died in May 19th. There was no autopsy.

The occurrence of the thrombosis, that is the coagulation of the blood in the veins, in such cases as those which I have reported is easily explained by the stasis of the blood which is already prone to coagulation, from its condition of hyperinosis. I am inclined to look upon the mechanical retardation of the blood-current from whatever cause, as a very important factor in the causation of the coagulation. The following is a case in which there was the blood stasis without any apparent indication of a blood crasis which could give the blood a tendency to spontaneous coagulation.

C. L., æt. 38, was admitted into hospital on October 7th, 1876, with a large ovarian tumour. She was a large woman naturally, but her girth at the umbilicus on her admission was 43 inches. The superficial abdominal veins were enlarged, and her legs were œdematous.

Oct. 22nd.—The ovarian tumour was tapped with an aspirator, and very much reduced in size. The fluid rapidly reaccumulated, till, at the end of October, her girth was 40 inches.

Nov. 2nd.—She complained of a severe pain in the calf of the right leg, which was found to be swollen, tense, and tender, with a hard tender cord in the course of the femoral vein, and enlargement of the superficial veins. The thrombosis was accompanied by an elevation of temperature, which up to this time had been normal. The temperature was 101° on the night of November 2nd, and was not again normal till the 7th, on one occasion being as high as 102°. On November 20th, she had a similar affection of the left leg. On the night of the 20th the temperature was 101° and remained high for three days. It had been normal up to this time since the thrombosis of the right femoral vein. After the death of this patient, which occurred on March 15th, 1877, I examined both femoral veins, and found the right one pervious throughout, but the left one, for about two inches before it passsed under Poupart's ligament, was divided into two channels by a thin fibrinous partition, both sides of which were perfectly smooth.

This patient was a great unwieldy woman from her natural corpulence, and the presence of an abdominal tumour weighing about 30 lbs. She could with difficulty change her position in bed, and complained of pain in buttocks from lying on them. I should think in this case the coagulation began in the gluteal and other veins of the nates, and from them extended to the femorals. The coagulation being excited by the great pressure on the venous current from the pressure of the tumour.

You will observe that in some of these cases I have drawn attention to an elevation of temperature coincident with the affections of the veins. There was an inflammatory fever, evidently a symptom of the phlebitis, which always occurs to a

greater or less extent as a consequence of the thrombosis. The existence of a phlebitis is also evidence in any case from the excessive tenderness along the veins and the thickening along their walls, and the results of it can be seen in the specimen which I have shown you from the popliteal vein.

This suggests the question of the relation of phlebitis to the affection of which I am speaking. Does phlegmasia alba dolens ever originate in a phlebitis? This question has special reference to the phlegmasia of puerperal cases, which is regarded by some as different from the venous thrombosis of such cases as I have reported, and one of the synonyms of which is crural phlebitis. Of the fact that veins are subject to inflammation there is now no doubt, also that the inflammation is attended with coagulation of the blood in the inflamed part. According to Quincke, in Ziemssen's cyclopedia, "Very early in the disease (phlebitis) a blood coagulum may form on the diseased part of the venous wall as soon, namely, as the endothelium of the intima has become altered in the slightest degree from its normal; coagulation occurs therefore more readily in the destructive than in the sclerosing form of inflammation"

The following case is, I think, an example of this:

J. C., æt. 30, died at the Montreal General Hospital on April 18th, 1876, of pyæmia, consequent on acute necrosis of the right femur. At the autopsy was found a thrombus in the internal saphenous vein. I quote the description from the autopsy report: "The long internal saphenous vein of the left leg is plugged about the middle with a thrombus. It could be felt internally as a firm cord. On removal and slitting it up. the upper part was free though much contracted. At a point corresponding to the middle of the thigh the vessel presents an oval swelling. Internally it is seen to be a decolorized soft mass, occupying the calibre of the vessel. It is soft and closely adherent to the intima." In the same case were found numerous spots of suppuration in the muscles and spots of pneumonia in the lungs. Now this localized thrombus appears to me to have been the result of a localized pyæmic inflammation of the walls of the

saphenous vein. This was the only place where any phlebitis occurred.

Another fact that is recognised by all pathologists, is the extreme rarity of primary phlebitis, that is, the very slight tendency of the veins to inflame.

Now I would wish to argue that the phlegmasia alba dolens of puerperal cases is essentially the same as that of such cases as I have reported, that is, is primarily thrombosis of the veins, and that the difference which some cases of milk leg present is due to a difference in the degree and extent of the inflammation of the veins which follow the thrombosis. Many milk legs, or perhaps better, puerperal cases of thrombosis, are met with which do not differ at all in essential characters from cases of simple femoral thrombosis. The following case is such a one:

D. C., æt. 23, was admitted into hospital on May 21st, 1877, suffering from cystitis. The patient had left the hospital a week before, having been admitted that time also for the same affection. While in the hospital the first time she was delivered of a seven and a half month's child. On her admission the last time she complained of great bearing-down pains, especially on micturition. On June 2nd, that is 37 days after the birth of the child, her temperature rose to 101°, and she complained of pain in the left groin. By a vaginal examination I found no swelling but tenderness in the left pelvic region. She continued to complain of this pain, till on the 6th of June her complaints became more urgent, the temperature rose to 102½°, and she complained of pain in the calf of the leg. The leg was examined and no swelling of the leg or foot was found, but a fulness of the thigh, with enlargement of the superficial veins here, and a hard knotty and tender cord, in the course of the femoral vessels. There was no tenderness in the calf at this time. On the next day the calf was tender and swollen, but not the foot, and the patient complained of numbness of the limb, and on the 9th of June the popliteal vein could be felt hard and tender. It is a strange circumstance that the bladder trouble entirely subsided since this affection of the veins.

June 13th.—To-day the tenderness is much less in the calf,

and over the popliteal veins which can, however, still be felt as hard cords. The swelling of the calf and thigh is much less, and the temperature is normal. I examined the vagina again to-day, and find some hard and tender cords on the left side of the pelvis. The numbness of the limb has disappeared. June 18th, the patient has been ordered her clothes, but is very lame on the left leg. The swelling of the calf and thigh, and the tenderness along the vessels have disappeared.

I think the phlebitis in phlegmasia alba dolens is secondary to thrombosis in the uterine veins, extending from them through the hypogastric to the common or external iliac.

Leishman is of opinion that thrombosis is the primary and an essential element in the production of the symptoms of phlegmasia alba dolens, but he gives an important place to the inflammation of the veins, and thinks that an affection of the lymphatics "is an essential though probably a secondary part of a typical case of phlegmasia dolens." He is of opinion that this is necessary to explain the white elastic swelling which is described, that venous obstruction alone would merely cause œdema. Assuming, with some pathologists, that the lymphatic system forms the channel through which fibrin is introduced into the blood, he thinks, with Dr. Tilbury Fox, that obliteration of the lymphatics would give rise to this elastic swelling on account of the retention of the fibrinous material in the tissues. He also says, however, that this obliteration of the lymphatics has never been demonstrated.

It seems reasonable to me to suppose that the phlebitis would give rise to such an elastic swelling, which would be marked in proportion to the extent of the inflammation of the veins. Certainly in the cases which I have seen there were no signs of an affection of the lymphatics, of an inflammatory character at least.

PATHOLOGICAL REPORT;

GENERAL HOSPITAL, MONTREAL,

For the year ending May 1st, 1877.

By William Osler, M.D.

(*Continued.*)

Respiratory System—Trachea.

Case lxi.—*Ossification of greater portion of mucous membrane of Trachea.* This curious condition was met with in a case of Addisons' Idiopathic Anæmia. (*See Canada Medical and Surg. Journal, March*, 1877.)

J. A., æt. 53. *Trachea.* Beginning just below the cricoid cartilage, and extending to the bifurcation, the mucous membrane is represented by irregular ossific plates, which towards the front of the tube and near the main bronchi form a continuous bony membrane. The free surface is denuded and very rough, numerous pits and projections alternating with each other. Towards the bronchi the ossified membrane is thicker, and firmly united to the subjacent cartilages.

Lungs.—*Pneumonia*

Of 14 post mortems in cases of pneumonia the following are of special interest.

Case x.—*Pneumonia of the upper lobe of the right lung; extensive meningeal inflammation.*—H. F., æt. 38. In hospital four days. (For clinical report see *Can. Med. & Sur. Jour.* Aug. 1876.)

Lungs.—The upper lobe of the right lung, with the exception of the anterior and lower borders, is in a state of red hepatization. The bronchial tubes of the consolidated area are uniformly filled with fibrinous plugs. The other lobes of this and the whole of the left lung are engorged, much blood and serum escaping on section. Scattered over the visceral pleura of both lungs, chiefly at the base, are small, white, firm granules, feeling to the touch like small shot, and looking very much like miliary gran-

ulations. Some of them are flatter, others are situated upon fibroid bases, and on examination they proved to be fibrous outgrowths of the pleura.

Brain.—On removal of the dura mater, the longitudinal fissure is seen filled up with yellowish-white lymph, and the Sylvian fissures are in the same condition. A thick layer of lymph exists about the optic nerve, extending over the perforated spaces to the pons, and on either side to the under surface of the temporo-sphenoidal lobes, and posteriorly over the medulla and contiguous portion of the cerebellum. A considerable amount of greenish-yellow lymph exists over the superior convolutions of the frontal lobes, and the same is seen in small quantities upon the parietal convolutions. Upon the left occipial lobe is a thin layer of extravasation. The vessels of the pia mater are moderately full. On section the white substance is glistening and moist. Fornix and septum exceedingly soft. Ventricles contain a moderate amount of fluid, and their walls are soft. Here and there on the course of the vessel, are small extravasations, and the same are noticed along the vessels on the fourth ventricle. No trace of miliary tubercle, found about the vessel or parts of the base.

CASE XV. — *Almost entire hepatization of left lung, with small pneumonic area in right. Extensive diphtheritic Colitis.*

M. S., æt. 22. In hospital days.

Lungs.—With the exception of the apex, the whole of the left lung is solidified and in a state of red hepatization. The visceral pleura is inflamed and covered with a thin layer of lymph, which in the fissures between the lobes is very thick. In the posterior part of the lower lobe of right lung is a patch of hepatization the size of an orange.

Large Intestine.—The mucous membrane of the cœcum is covered over with a thin layer of yellowish, firmly adherent lymph, which can be stripped off, showing a much injected surface beneath. The first foot of the colon presents nothing abnormal, but in the next eighteen inches the mucous membrane is congested and covered with elevated patches of lymph,

many of which are isolated, the majority, however, being united and arranged in a linear direction. The patches are elevated, the isolated ones of the same shape and size as rupia crusts; on section they are seen to extend through the whole thickness of the mucous membrane. Throughout the descending colon and sigmoid flexure these patches occur; in the latter region there is an irregular one, 4″ in length.

CASE LXII. — *Diabetes, phthisical cavity in right lung surrounded by hepatized tissue.*

J. W., æt. 26. (Clinical history, *Can. Med & Surg. Journal*, August, 1877.)

Lungs.—Posterior part of upper lobe of right lung is occupied by an irregular cavity, elongated in form, holding about an ounce. The walls are made up of a dirty brown, pasty material, caseous in character. There are no fibroid or other changes about the cavity, but it is surrounded by lung tissue in the first stage of pneumonia. The whole of lower lobe of this lung is solidified, and the lower lobe on the other side is in the same condition.

CASE LXIII.—*Chronic phthisis. Almost entire destruction of both lungs. Healthy portion involved in a pneumonia.*

J. F., æt. 35. In hospital for a long time, caught cold, and died of inflammation of the only sound portion of his lungs.

Lungs.—Right lung, with the exception of anterior half of lower lobe, is a mass of cavities and caseous nodules. The unaffected part is in a condition of red hepatization, a few firm nodules being seen in it. The pleura over it is covered with a thick layer of recent lymph. Left lung almost entirely destroyed by cavities.

CASE LXIV.—*Simple pneumonia of left, pleurisy of right lung.* A. G., æt. 22, ill 6 days.

Lungs.—Three and a half pints of serous fluid in right pleural sac over lower and middle lobe and pleura covered with thick lymph. Both of these lobes collapsed and airless. Anterior two thirds of upper lobe of left lung in condition of red hepatization; the pleura over it not involved in the inflammation; rest of the organ in a state of acute œdema.

CASE LI.—*Pneumonia of right lung, uniform involvment of pleura covering it.*

H. L., æt. 36.

Lungs.—Right uniformly hepatized. The visceral layer of pleura extensively inflamed and covered with a dense layer of yellowish-white lymph, in places fully ¼″ in thickness. Left lung much engorged and œdematous. Right lung weighs 3lbs. 6½. ounces; left, 1lb. 13 oz.

Remarks.—Throughout the past winter pneumonia prevailed to an unusual extent, and was very fatal, especially to elderly and debilitated persons. Ten fatal cases occurred in the General Hospital, some of which, as above recorded, presented very interesting pathological features. Foremost among these is the case complicated with simple meningitis, a rare, and, from a clinical stand-point, puzzling complication, the pneumonic symptoms being masked by the cerebral phenomena, and rendered liable to be over-looked. It is interesting to note that the pneumonia was of the upper lobe, a situation which when affected appears more liable to be accompanied with brain symptoms, delirium, &c.

The complication of diphtheritic or croupous colitis in pneumonia must be very rare indeed, as I can find no reference to the occurrence of such an affection in any of the writers at my disposal.

Several of the autopsies suggested a practical point of much importance, viz., the propriety of bleeding in certain cases. Thus, for example: A young man, aged 20, full-bloodod, died of pneumonia on the 5th day. At the autopsy, right heart and venous system gorged. Left lung uniformly solid, in a condition of red hepatization, its tissue dry, containing but little blood; right lung in a condition of acute œdema, the surface on section bathed with bloody serum. Death most probably resulted from the vain effort of the right heart to send a certain volume of blood through an area of pulmonary capillaries reduced one half by disease; in consequence of which the blood pressure was nearly doubled in the normal capillaries, transudation of serum under the increased lateral pressure took place, and a suffoca-

tive œdema terminated the case. The reduction of the volume of blood by a copious venesection would have restored the natural equilibrium between the circulating fluid and the pulmonary capillaries: just as nature gradually adjusts it in the case of a consumptive, with more than one half of the pulmonary capillaries destroyed.

Gangrene.

CASE XII.—*Phthisical cavities in left lung; gangrene of pulmonary tissue about one of them.*—H. L., æt. 38.

Lungs.—Occupying the middle third of the upper lobe of the left lung behind, is an area of gangrene, the size of a large orange. It is situated immediately beneath the pleura, and was perforated by the finger in the removal of the organ. On section it was found to consist of dark, exceedingly fœtid, decomposing lung tissue, which, after pouring on a stream of water, adheres to the vessels and bronchi as irregular shreds. The lung in the immediate neighborhood is consolidated, and several small cavities and caseous nodules are present in the other lobes.

Bronchial tubes contain a very ill-smelling mucus, and the membrane is very dark-coloured.

Phthisis

Of twelve cases, three only are worthy of notice.

CASE XXXVIII.—*Fibroid contraction and induration of entire right lung, cavity at apex. Displacement of heart; hypertrophy with dilatation of right chambers.*—(*See Can. Med. & Surg. Journal, Feb.* 1877.)

CASE LXXXI—*Chronic Phthisis.—Perforation of the lung.—Pneumothorax. Dermoid cyst of right ovary.*

J. S., æt 21.—On opening the abdomen the liver is seen to be displaced downwards, the upper border corresponding to the lower margin of the ribs. On penetrating the right pleural sac a considerable amount of air rushed out. 18 ounces of a clear, serous fluid in this cavity.

Lungs.—The left upper lobe is riddled with cavities, the lower lobe is slightly crepitant, and contains numerous caseous and tubercular nodules. Upper and middle lobes of right lung almost airless, except at free border; lower lobe collapsed. No adhesions except at extreme apex. The visceral layer of the pleura of lower lobe is covered with patches of lymph. At the upper part of this lobe behind, about an inch from the root of the lung, and the same distance from the upper lobe, there is a small oval perforation, 2½‴ by 1½‴, through which, on pressure, air bubbles. For a couple of lines about the orifice the pleura is pale, beyond this the membrane is injected and covered with recent lymph. The perforation does not lead into a definite cavity, but into a rapidly softening portion of lung, infiltrated with pus and in parts quite diffluent.

CASE LXXXII.—*Chronic Phthisis. Cancer of the vertebræ and ribs.* Reported under Osseous System.

Pleura.

Small fibroid thickenings ou visceral layer. — In three instances have localized fibrous outgrowths of the pleura been noticed, resembling very much in size and general appearance miliary tubercles. The first case in which they occurred was the one of pneumonia complicated with meningitis, and the note with reference to them in the *post mortem* book is as follows: "Scattered over the surface of pleura of both lungs, chiefly of lower lobes, are small, white, firm granules, feeling to the touch like small shot, and looking very much like miliary granulations. Some of them, however, are flatter, not granular, and they may be simple fibroid thickenings of the pleura" Such they proved on examination to be. In a case of cancer of the liver they occurred, though not so abundantly on the pleura covering the left lung; and a third time on the pleura of the upper lobe of the left lung in a case of pneumonia. They occur chiefly on the interlobular tissue, sometimes as shot-like elevations on small opacities of the membrane.

They are interesting on account of the resemblance they present to miliary tubercles, so much so, that an experienced

pathologist, seeing them in the first case above referred to, raised a question as to the nature, whether simple or tuberculous, of the meningitis accompanying it.

Inflammation.—Of fifteen cases in which the membrane was affected, thirteen were simple in character, and accompanied with a variable quantity of exudation; the other two were cases of empyema.

In the following cases the effusion was enclosed in pockets, and though for convenience, the chest was tapped, post mortem, the whole of the fluid could not be drawn off.

CASE LXVII.—*Pleurisy: Fatty and fibroid Heart.*—A. B, æt. 63.

Right Pleura.—By tapping about seven pints of clear citron-coloured fluid wore withdrawn. On removing the sternum a definite pocket is found from which the fluid had been removed. The upper wall of the cavity is formed of a layer of tenacious lymph. Another smaller pocket exists in the upper and back part of the pleural cavity.

CASE LXXXVIII.—*Suppuration of portal vein. Empyema.*—A. B., æt. 40.

Left Pleura.—About 54 oz. of pus in this cavity. Anteriorly it is contained in two pockets, one the size of a large orange immediately at the apex, the others correspond in position with the third and fourth ribs, just external to the cartilages. This latter pocket communicates by a small round orifice with the general cavity which occupies the lower and whole of the back part of this side. The pus was withdrawn from the latter without affecting in any way the contents of the cavity at the upper part of the sac, and only half emptying the other one.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Abscess in shaft of Tibia. Application of Trephine, with relief and recovery.—By G. E. FENWICK. Reported by J. D. CLINE, B.A., M.D., House Surgeon to the Hospital.

C. P., æt. 36, farmer by occupation, was admitted into hospital on the 8th of December, 1876, complaining of lameness and pain, principally nocturnal, in left leg.

Family history good. Has himself always been strong, never suffered from any ill health except that consequent on the disease of the leg. When eight years old he had, evidently from the history which he gives, periostitis of the tibia with suppuration followed by necrosis of the shaft of the bone. Pieces of bone were discharged by sinuses, the depressed cicatrices of which are seen, a couple about the middle of the shaft and one above the internal malleolus. He was confined to bed for two years at this time, when he began to go about on crutches. These sinuses remained open till he was 16 years of age. The bone since that has been, or it has now, much thickened at the middle of the shaft and at its inferior extremity. For the last twenty years he has suffered at times from nocturnal pains in the leg when the skin over the anterior surface of the bone would become red, swollen, and tender, and on two or three occasions the old sinuses have opened and discharged for a short time. Nine months ago the leg became swollen, red and painful, and has remained so ever since, getting worse at times, and causing great suffering at night. Nevertheleless, the patient worked all last summer on his farm, procuring sleep at night by tincture of opium, of which he would take 50 to 60 drops four or five times in the night. During this time his general health has been good. His lungs are healthy and urine normal.

From the history of the case, the appearance of the limb, and the pain and tenderness, which was very acute, together with the nightly paroxysms of increased suffering, which was described as of a bursting character, Dr. Fenwiek diagnosed

abscess of the shaft of the tibia, for the relief of which he proposed the application of the trephine, and the operation was decided on for the following day.

Dec. 9th.—Operation—The patient was put under the influence of chloroform. Esmarch's bandage was applied. Dr. Fenwick made a straight incision, 4 inches long, down to the bone, and exposed the bone freely on each side. The bone was covered with periosteum and smooth except about the middle of the incision where there existed a small projecting nodule. There was no opening in the bone. The small bone trephina, $\frac{3}{4}$ of an inch in diameter, was applied over this nodule. The piece of bone removed was about $\frac{1}{4}$ of an inch thick. As the trephine penetrated a *thin yellowish* fluid welled up. A cavity existed about the size of a pigeon's egg, filled with this kind of *fluid*, extending about one and a half inches below the opening, the upper boundary of the cavity being on a line with the upper edge of the opening.

The cavity was sponged out with a weak solution of carbolic acid, and stuffed with strips of lint saturated with carbolized oil. When the elastic band was removed there was considerable oozing of blood, which soon stopped, one or two points being secured by the catgut ligature.

The patient suffered some pain in the early part of the night, but the pain different in character from that which he had been suffering before. Ordered morphia gr. $\frac{1}{8}$ hypodermically. Temperature 99°.

10th. — Very comfortable. "Feels as if he had a new leg." Morning temperature $98\frac{2}{5}$.° Did not change plugs of lint. Evening temperature $100\frac{1}{5}$°.

11th. — Slept last night without any morphia. No pain. Temperature in morning 100°. In the evening $99\frac{3}{5}$°.

17th.—Ordered clothes and full diet. The cavity is granulating rapidly.

19th.—Dressing changed to red wash, with strips of plaster to bring edges of incision together.

28th.—Discharged. Cavity reduced to size of an almond.

Case if Ununited Fracture of Femur.—Successfully treated by Brainard's Drill.—Under the care of DR. FENWICK. Reported by Mr. D. F. SMITH.

P. McI., æt. 33, farmer, was admitted into hospital March 31st, 1877. He has always been healthy and is of temperate habits. There is no history of syphilis or cachectic taint of any kind. In March, 1876, he was struck by a falling tree and received a simple oblique fracture of the left femur. The fracture was set by a long side splint, with extension made by a perineal band. Union never occurred and the patient went about on crutches till his admission into hospital. On examination it was found that the limb could be flexed in any direction at the seat of the fracture. There was riding of the fragments the upper one riding anteriorly. The ends of the two fragments could be felt anteriorly and posteriorly about 2½ inches apart. There was shortening of the limb of 2½ inches by measurement.

The patient was put under chloroform, and after the adhesions were broken up by forcible flexion and rotation of the limb, it was put up with a long side splint and coaptation splints, extension being made by weights amounting to 14 lbs.

After six weeks the leg was examined, and there was found to be no union. There was a gain in the length of the limb of half an inch.

Dr. Fenwick now contemplated sawing through the bone at seat of fracture subcutaneously by means of Adams' saw for subcutaneous division of the neck of the femur, but allowed the patient to go about for a few weeks before operating. After going about for a while there was found to be a great deal of thickening of the bone about the fracture and considerably less freedom of motion, so that it was determined to use Brainard's drill instead of the saw. The operation of drilling was performed on the 13th of June. The bones were drilled in different directions through an opening on the outer side of the thigh, and the fibrous bands torn up as much as possible. The limb was then immediately put up in a glue bandage. At the end of four

days, when the bandage was perfectly hard the patient was allowed to get out of bed and go about on crutches.

July 13th. — The glue bandage was opened and the leg examined. There was found to be some consolidation, less mobility but not perfect union.

August 1st.— The bandage was removed entirely. The union is firm. There is great thickening of the bone at the seat of fracture for about four inches. The knee-joint is very stiff.

13th.—Patient was discharged. Can bear a great part of his weight on the leg. Can bend the knee-joint very little, not more than 30 degrees. The amount of shortening is two inches.

Excision of Wrist. By Dr. FENWICK. Reported by J. D. CLINE, B.A., M.D., House Surgeon, Montreal General Hospital.

B. B., æt. 37, farmer, was admitted into hospital on the 18th October, 1876. He is a man of large frame, sandy-coloured hair, and florid complexion, born in Ireland. His general health has been good. He has had some of the specific fevers, and been subject to attacks of erysipelas since he was 18 years of age, occurring in the right arm usually; in the head in the last two attacks—the last of which was five years ago. He has been of regular habit; does not drink nor smoke.

Twenty-two years ago he had his right arm jammed between two pieces of timber, inflicting a wound on the back of the hand, extending from the middle of the metacarpal bone of the forefinger to the base of that of the little finger. This wound healed entirely in about a year. He has never been able to flex the thumb since. The hand has continued in this condition, becoming painful only if overworked, till four years ago, when it became painful and swollen over the back of the wrist. Last March an abscess formed, which has been discharging ever since. There are now two sinuses leading to the joint, one on the ulnar side of the joint, and the other on the radial side of the back. There is considerable thickening about the joint.

He can only semiflex the fingers. The articular surfaces which enter into the formation of the joint are all destroyed.

Operation.—Chloroform was used for anæsthesia, and Esmarch's bandage applied. One incision only was used: the radial incision on the dorsal surface, which was made according to Lister's directions. The tendons of the extensor carpi radialis brevior and longior were divided. The soft parts on the radial side, containing the radial artery, were raised as much as possible without any injury to the artery, and then, with bone pliers, the ends of the radius and ulna, all the carpal bones, and the heads of all the metacarpal bones, were removed. It was not found necessary to make an ulnar incision. No ligatures were found necessary. A couple of sutures were put in the lower part of the incision. The wound was stuffed with lint, saturated with carbolized oil, and the arm was supported on a palmar splint, with cork pad for hand, as recommended by Lister.

Oct. 20th.—The dressings were changed twice a day. Temperature this evening, $101\frac{3}{5}°$; pulse, 80. Ordered a draught of morphia to-night.

Oct. 22nd.—The stuffing of the wound was omitted. Apply carbolic lotion to wound with lint and guttapercha tissue. Temperature to-night, $100\frac{2}{5}°$; after this there was no evening temperature higher than $99\frac{2}{5}°$. On the seventh day temperature became normal and continued so.

Oct. 25th.—The wound to be dressed with red wash. Granulating rapidly. Began passive motion of fingers. General condition much improved.

Nov. 7th.—Wound now quite superficial. Removed end of splint as far as metacarpo-phalangeal joints, so as to leave fingers quite free.

Nov. 17th.—An abscess formed on the under surface of the arm, which was freely opened.

Nov. 20th.—Removed splint altogether. Ordered passive motion of fingers and wrist.

Discharged. Wounds on upper and under surface of wrist quite superficial, but not entirely healed.

Reviews and Notices of Books.

The Practitioner's Reference Book,—adapted to the use of the Physician, the Pharmacist and the student. By RICHARD J. DUNGLISON, M. D., 8vo. pp. 341. Philadelphia: Lindsay & Blakiston, 1877.

We have before us a book from the pen of one, whose name, for two generations, is familiar to the medical profession. As the editor of the last edition of his father's dictionary, Dr. Richard Dunglison has bestowed an inestimable benefit on his medical confreres. We are still more under obligations to him for the care that he has bestowed on this last production. The "Practitioner's Reference Book," is a work which should always have its place on the consulting-room table. It should never be out of sight, for in the routine of practice it has hourly to be consulted. It is simply a collection of facts, and facts the knowledge of which is indispensable. The author commences by giving in a few words an account of the various weights and measures used in different countries. Next a set of posological tables for children, extremely carefully compiled, and to the young practitioner, whose experience has been gained in hospital, and whose acquaintance with the minor details of the treatment of the disease of children is scanty, this is of endless value. The part of the work which seems to us to be the most needed and the one to which reference will be most frequently made is that which treats of the doses of subcutaneous injections and enemata.

Of the article entitled "the modern treatment of diseases," we scarcely approve. It partakes, too much of the character of the innumerable class of "cram" books which find so ready a sale among lazy students, those who have not sufficient energy to master some standard work on therapeutics.

Amongst the "selected prescriptions" there are many valuable formulæ which cannot fail to be appreciated by any one who by constant habit has not yet mastered the art of prescribing.

A part of the work with which we think practitioners should

familiarize themselves is that which relates to the hygienic treatment of infants, the principles of disinfection, and the prevention of the spread of infectious diseases. The author's remarks on the dieting of invalids, a simple enough matter in a hospital, but a difficult one in private practice, are very practical and deserve careful attention. The last chapter relates to post-mortem examinations, and the directions given apply to those carried on in private practice. It contains many valuable hints. In conclusion, we must say, that never have we seen a medical work more likely to afford assistance to one commencing private practice, than that which Dr. Dunglison has now given us.

The Practitioner's Hand-book of Treatment of the Principles of Therapeutics By J. MILNER FOTHERGILL, M.D., Member of the Royal College of Physicians of London; Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; Assistant Physician to the West London Hospital. Philadelphia: HENRY C. LEA, 1877.

After all, the ultimate object of all scientific researches in the departments of Physiology and Pathology ought to be to assist in the establishment of correct laws for diagnosis and cor-

1. The natural state of the blood.
2. The comparative state of arterial and venous blood.
3. The spontaneous change ensuing in blood after its removal from the system.

Before describing his own gravimetric system Dr. Pavy proceeded to criticise Bernard's new volumetric process, which has been described fully in recent issues of the *Comptes Rendus*. This method the author proved to be not only devoid of precision as a quantitative analytical process, but was in itself calculated to give rise to fallacious results, inasmuch as keeping the suboxide of copper dissolved by means of organic matter was fundamentally wrong. The entire system was based on errors, and the results were necessarily incorrect; two of these errors the

the author dealt with somewhat in detail. The first was in the assumption that the volume of trial liquid corresponds in c.c. with four-fifths of their weights in grammes of the mixture of sulphate of soda and blood. In practice it was found that the actual relation between the volume of liquid obtained and the weight of the mixture employed must vary in each individual case, according to the solid matter existing in the particular specimen of blood and the loss of liquid by evaporation during the separation of the coagulum by heat. The other error in Bernard's method arose from the influence which organic matter exerted in preventing the deposition of suboxide. The large addition of potash which is employed in this process, viz., from 20 to 25 cubic centimetres of a concentrated solution to one c.c. of the copper test, acts upon some one or other of the organic principles left in the liquid obtained from tbe blood, and prevents the deposition of a suboxide of copper.

The author then proceeded to describe his own new gravimetric process, in which he adopts the use of a galvanic battery for affecting the deposition of copper which has been reduced by the sugar in a form to be susceptible of weighing. The details of this method are, shortly, as follows :—

A certain volume of blood—about 20 c.c. forms a convenient quantity—is taken for analysis, and first mixed with 40 grammes of the sulphate of soda, the whole must be subjected to weighing in detail, so that the precise weight of the blood taken may be known. To this mixture, contained in a beaker of about 200 c.c. capacity, about 30 c.c. of hot concentrated solution of sulphate of soda are added, and the whole contents heated until a coagulum is formed.

Filtration is then performed, and the coagulum is thoroughly washed so that all traces of sugar may be removed. The liquid thus obtained, from having been run and squeezed through muslin, is slightly turbid, and must be boiled again and filtered through paper to render it perfectly clear. It is now ready for the application of the copper test. Being brought to a state of ebullition about 10 c.c. of the potassio tartrate of copper solution, or sufficient to secure that the test liquid is left in excess, are

added, and brisk boiling continued for a minute, but not longer. In this way a reduction of the oxide to the suboxide of copper is effected by the action of the sugar present in the solution.

The liquid is then filtered through a plug of asbestos, or what is better, glass wool. Ths suboxide having been collected and washed from excess of the copper test liquid is next dissolved by a few drops of nitric acid, a small quantity of peroxide of hydrogen having been previously added in order to effect oxidation and consequent ready solution.

The copper present in the liquid is now deposited by the agency of galvanism. The positive pole of the battery is formed by a platinum spiral coil around which and forming the negative pole is a cylinder of platinum foil; upon this the copper is slowly deposited in a pure metallic form. This operation is continued until the appropriate test shows that the whole of the copper has been thrown down. The period ordinarily required to effect this does not exceed 24 hours.

The platinum cylinder is next removed, and instantly plunged first into distilled water, and then into alcohol. After drying in a water oven it is ready for weighing; the differencc in the weight of the cylinder before and after the operation gives the amount of copper deposited.

The battery used is a modification of Fuller's mercury bichromate battery, and has been selected on account of the constancy of its action.

From the amount of copper deposited, that of the sugar existing in the blood analysed may be accurately calculated. Five atoms of the cupric oxide of the test solution arc reduced by one atom of glucose, it follows that 317 parts of copper represent the equivalent of one part of glucose, or the relation stands as 1 of copper to 0.5678 of glucose. Therefore to ascertain the amount of sugar the weight of the copper has to be multiplied by 0.5678. This application of the copper test solution yields a gravimetric instead of a volumetric process of analysis, and one which has no uncertainty belonging to it. There is nothing for the mind to decide, and no opportunity for error of judgment, as may be the case to a slight extent where a gradual fading of

colour—as in the volumetric process—has to be watched until the attainment of the proper point of decolouration has been effected.

The accuracy and reliability of the foregoing process is strongly supported by the uniformity of the results obtained from a large number of experiments. Compared with the results yielded by this gravimetric process, those obtained by Bernard present the greatest discordancy. The figures he gives are invariably too high, and there is no intelligible relation in the difference noticeable, suggesting that there is something radically wrong in taking decoloration without precipitation of suboxide as a means of estimating the amount of sugar. Dr. Pavy supports this assertion by the conclusions derived from a number of experiments.

Treatment of Diphtheria by saturated solution of Chlorate of Potash. — Dr. A. Seeligmuller of Halle, on Saale, Prussia, strongly recommends the use of saturated solutions of chlorate of potash in diphtheria. He tells us that in the year 1868, an epidemic carried off 25 children in a quarter comprisimg only a third of the town of Halle (18,000 inhabitants), not including those which were treated by private practitioners. His formula is as follows:

Solution: of chloratate of potash, 10 parts to 200 of water. One half ounce to an ounce every hour.

All such modes of treatment as the application of gargles, ointments, scrapings and cauterizations of false membranes he strongly denounces. The patient should take the chlorate of potash solution as long as there are yet traces of false membranes, at the outset of the disease every hour, and later on every two or three hours. To children over three years a tablespoonful, and to those under that age half a tablespoonful, should be given every hour day and night. Nothing should be added to the solution. No liquids should be taken for some time after the dose, in case the effect of it might be neutralized.

When the patient is old enough to gargle, M. Seeligmuller

uses his saturated solution as a gargle, and also washes out the mouth pharynx and nose, but he lays the greatest stress on its internal administration.

The first effect is to cause the disappearance of the fœtor of the breath, at the same time the false membranes visibly diminish in extent; then the ulcerated surfaces, covered with white pus, rapidly become clean, so that soon a surface covered with healthy granulations replaces it. The restoration of the general health is the most wonderful part of its action.

With regard to its action the author believes that its effect on the system is produced within twelve hours after its administration. Its action is both local and general.

Locally, it acts as a light caustic, and aids in detaching the patches of false membrane by the increase of the secretion of mucous glands. As to its general action he advances this thory. Assuming Bollinger (of Munich) to be correct in stating that the noxious action of bacteria is due to their depriving the system of oxygen by reason of their great affinity for that gas, in diphtheria there are similar organisms at work which must effect the deprivation of oxygen from the red corpuscles. Now Mr. Bing has proved that chlorate of potash is reduced by animal fluids, as pus. Therefore when we introduce a large quantity of chlorate potash into the system, we replace the oxygen of which the red corpuscles have been deprived. On this theory we can understand its inefficient action in small doses, and in weak solutions.

Chlorate of potash given in such quantity as Mr. Seelingmuller advocates has two dangerous actions, the one on the heart, the other on the digestive apparatus. With regard to the heart it is difficult to separate its effect from that of diphtheria itself, nevertheless he believes that chlorate of potash has a weakening influence on the action of the heart, and his impression has been verified by experiment on dogs.

As to the action on the digestive system, it tends to increase any gastric catarrh existing, as well as to give rise to anorexia. In these cases the administration of the remedy may be temporarily suspended.

Epithelioma of the Tongue. —Treatment of Synovial Cysts of the palm of the hand. Clinical Lecture by M. PEAN at the Hôpital St. Louis. — The patient, on whom we are about to operate is a man æt. 51, sent to me by Dr. Ricord. His desire is to get rid of his trouble, and I yield to it with pleasure, since the diagnosis is beyond a doubt, and because, as I will presently show you, there is great benefit in operating in these cases as soon as possible.

We have to deal with an epithelioma of the tongue, of easy recognition. We find a depression of the mucous and submucous tissues, an ulcerated surface and fungus growth, all lesions characteristic of epithelioma.

If, in this case we have no difficulty in recognizing this disease, this is far from being always the case, more especially at the outset of the affection.

Epithelioma is more likely to attack the sides of the tongue, the seat of election of those ulcers so frequently caused by carious or broken teeth.

A gummy tumour of the tongue does not present so circumscribed an outline as epithelioma, it seems to loose itself little by little in the surrounding textures; and it has a violet tint. The question can be fully settled by the exibition of iodide of potassium.

Since there is an absolnte necessity of operating as soon as possible, I will bring under your notice certain points in the clinical history of epithelioma which ought always to be remembered.

Now in our patient, in spite of the extent of the disease, we find that the glands of the neck are unaffected.

It must be understood that the extension to the glands of the neck has no relation with the extent of the disease. Thus I have brought to you a patient affected with a general epithelioma of the whole tongue, who has no glandular complication, whatever. Parallel cases are not uncommon. On the other hand it is no uncommon thing to see a small tumour give rise to glandnlar induration.

As a practical conclusion, you must remember that your

interference should not be influenced by the size of the tumour. You should operate as soon as your diagnosis is complete.

Moreover, you will still see cases where an epithelioma, situated, for example, on the right side of the tongue produces its effect on the glands of the left side, and you must not on this fact establish a false security. It is a fact difficult of clinical explanation, although anatomy teaches us the anastomoses which exist between the lymphatic vessels of the two sides of the tongue. Another fact which should influence you in operating early, is the difficulty you will find in extirpating degenerated glands in the neck, which are sometimes adherent to the great vessels of that region.

In a general way epithelioma of the tongue is particularly malignant, a fact clinically true, but not easy of explanation. You see, on the contrary parts, the penis, for example, where the growth remains stationary for a long time, and seems a local affection.

Moreover, if having removed the bulk of the tumour, and also, a part of the neighboring tissues, you have no recurrence in the original seat of disease, there is great likelihood of its occurring in the glands of the neck.

With regard to the operation in itself, it is not so difficult if the growth be of limited extent, but it is another matter when the disease has involved a great part or the whole of the organ. Here the difficulty of operation is very great. Above all things the loss of blood is to be avoided. In this purpose the compression of the carotid or lingual arteries has been recommended. The use of the écraseur does not exempt one from this great drawback to the operation.

You know, that in this region one cannot use ligatures without the risk of secondary hæmorrhages. I will have recourse, in this case to preventive hæmostasis, by means of my "pinces hemostatiques," of larger size. The mouth having been previously kept open by a suitable instrument, I am in the habit of surrounding the growth with these forceps. In a small tumour nothing is easier. Three forceps are required: two, at a right angle to separate the mouth, the third is applied to the ranine artery.

These forceps ought to be applied in such a way as to separate the diseased part, below its apparent limits, so as to be sure of the removal of all affected tissue. The bistoury or thermo-cautery has only to run along the forceps, which plays the part of a director.

When the tumour is of great extent the difficulty is of course greater. I follow the same plan, but I affect the removal piece by piece, each time separating a portion of the tumour by fresh forceps. In that way hæmorrhage can be avoided, with far greater certainty than with ligatures. We will use in this operation the thermo-cautery of Dr. Paguelin.

Lastly, I do not wait for the patient to be completely anæsthetized. It is of advantage in operations about this region to allow the patient the power to eject the blood which trickles into the air passages. To obviate completely this last accident, a sponge mounted on a long pair of forceps should be introduced just to the pharynx, it absolutely prevents the escape of the blood.—*La France Mèdicale.*

Treatment of Synovial Cysts of the palm of the hand.—We have here to-day, a young girl a victim to Pott's disease with psoas abscess, who has come to seek surgical assistance for one of those cysts of the palm of the hand, which contains rice like granules, as is shown by the crepitation peculiar to those productions. The ill-success of medical treatment, and the danger of certain operations, authorize the surgeon to refuse to interfore, if the patient should not insist on operation.

It has been suggested to puncture these cysts and to inject iodine, but under such circumstances, suppuration of the cyst is almost inevitable. Some surgeons make an incision of greater or less length, in order to rid them of their contents. Now the inflammation of the synovial membrane which surrounds important tendons, and suppuration which is the direct result of it, brings on cicatricial retractions.

In this patient I am going to practise a subcutaneous incision of the cysts, and having emptied it of its contents a layer of

collodion will be applied, and by means of pads of lint and a proper bandage, a steady compression will be established. Should we not effect a cure by this treatment, we will make a free incision, and empty completely the cyst contents, and avoid the dangers of this operation by the "wadding" dressing. It is one of those cases where this plan of dressing shows its very great utility. Already by following this plan several surgeons have obtained such success as to guarantee the radical cure of this affection.—*Movement Médical*, June 30th, 1877.

Salicylic Acid and the Salicylates.—Observations of M. GERMAIN SEE.

Continued Fevers and Infectious Diseases.—Results unsatisfactory. Reiss, of Berlin, gave salicylate of soda to 260 typhus fever patients. The temperature was lowered to the extent of one or two degrees (*c*), but the percentage of mortality was not reduced. Similar results have been observed at other continental clinics.

Acute Rheumatism.—The effects of salicylic acid and salicylate of soda may be thus summarized. I. Cessation of pain always takes place, usually in 12 to 18 hours. II. The articular effusion disappears at a period varying from one to three days, but never before the pain. Swelling goes down as the effusion disappears, and with much greater rapidity if the peri-articular structures be alone involved. III. Motion becomes easy after the third day. M. See has seen patients whose lower extremities were attacked, get out of their beds in two or three days. IV. Fever ceases, but never before the pain.

Complications of Rheumatism.—Salicylic medication has no effect in modifying the attacks of endocarditis, pericarditis, &c., to which the rheumatic patient is subject. When employed early in the disease he thinks it can save the serous membranes.

Acute Muscular Rheumatism. — A case is cited where recovery took place in ten days. It has also been used with advantage in lumbago.

Chronic Rheumatismal Affections.—Paroxysmal Rheumatism is

said to be cured immediately, and a like success is met with in simple cases of chronic rheumatism. In nodose arthritis the character of the disease is modified and finally cessation of pain takes place.

Gout.—M. Sée states that he has observed prompt disappearance of pain, and diminution of joint-swelling, in short that an attack of acute gout can be completely recovered from in 48 hours. M. Sée was himself surprised at their bringing about the resolution of articular enlargements of very old standing sometimes even the complete disappearance of gout stones, and restoration of motion in joints which for months and even years had been gouty and almost auchylosed. M. Sée brings forward proof of their beneficial results in gravel, facial neuralgia and painful affections of the spine.—(Condensed from the minutes of the meeting of the Academy of Medicine, Paris, July 3rd, 1877.).

In the *Gazette Hebdomadaire, MS.*, there is an interesting account of the mode of dressing stumps, known in France as the "Bordeaux method."

According to M. Azarre, who is the exponent of this plan, there are three principal points in the treatment: deep drainage, deep suture, and sufficient suture. Take, for example, an amputation of thigh, with equal or nearly equal flaps. Oozing having ceased a large drainage tube is placed in the bottom of the wound behind the bone, and fixed there by being tied in a knot over the limb. Then the flaps are united at their bases by a deep suture of double silver wire twisted over a piece of gum catheter, in such a way that by untwisting the wire the tension of the suture can be relieved. This deep suture is placed one inch and a half or an inch and three-quarters from the edge of the cut, and is composed of two or three points of suture, according to the thickness of the limb. The next step consists in the perfect adaptation of the skin by means of a twisted suture, applied with the greatest nicety as a plastic operation and strengthened, according to the plan of M. Demice, by pieces of charpie soaked in collodon.

The dressing is completed by the application of wadding over all the wound except at the opening for the drainage tubes, where a plug of charpie is put to collect the pus and serum.

On the second or third day the suture needles are removed from the twisted surface, and the deep sutures are loosened. Three to five dressings at intervals of three to four days are quite sufficient to obtain union within 10 to 20 days. M. Azarre cites a case of amputation of thigh united in ten and one of leg in 11 days. The following statistics are brought forward in support of this treatment.

Amputations.	No. of Cases.	Deaths.
Of Thigh.....	.... 30	.... 5 ....
Of Leg.....	.... 33	.... 3 ....
Other Amput...	....139	.... 4 ....

The author considers that there is no novelty in the so-called "Bordeaux plan." In fact it is what many of the older surgeons practised. The idea of the association of drainage with suture seems to be borrowed from Lister, to which proceeding a greater part of the Edinburgh surgeon's success, the writer attributes. —*Gazette Hebdomadaire de Médicine et de Chirurgerie, 25th May*, 1877.

The Percussion of Bones.—Percussion of bones is employed, either to find out the painful point in bones or to diagnose, by the character of the note produced, the pathological changes that have taken place in the bone. Lucke says he has made use of percussion only in the long bones, and has arrived at the following results: The epiphysis gives a higher note than the diaphysis. The corresponding bones of each side give out the same note. Freshly united fractures give out a deeper note. Chronic central ostitis gives a deeper note than normal. In a case of chronic gonitis the diaphysis of the affected tibia, which was porous, gave out a much higher note than the opposite healthy one, The percussion had better be performed with the extremities hanging, and in the lower extremities not touching the ground.—(Prof. Lucke, quoted in *Schmidt's Jahrtüche*, Bd. 173, No. 7, 1877.)

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1877.

CANADA MEDICAL ASSOCIATION.

The annual meeting of the Canada Medical Association will be held in this city, on Wednesday, the 12th September next, and so far it is the intention to hold the meeting in the new building of the Windsor Hotel, situated on Dominion Square. We hope to see a large and influential gathering. The work cut out for the meeting is very considerable. Up to the time of going to press, twenty-five to thirty papers have been promised on various subjects, besides which we will have the president's address. We presume this will be of a general character, as it is not to be expected that the president will take the wind out of the sails of the various chairmen of committees, who come with their reports on the different branches of medical science. It is quite possible that many other papers will be forthcoming, besides those which we are enabled to announce through the courtesy of the general secretary, Dr. David. The committee of arrangements are at work, and we trust that everything will be prepared to render the meeting a success in every particular. There is one point that we had hoped to be able to announce: that the Association would be pecuniarly capable of publishing a volume of transactions. On a former occasion, when the Association met in our city, the profession subscribed largely for the entertainment of their guests. After all expenses had been paid there remained a surplus in cash, which was presented to the charitable institutions of our city.

We would suggest that, should this occur on the present occasion, it be thrown into the common fund for the express purpose of aiding in the publication of a volume of transactions. It would give encouragement to real workers in the field of research, as it is somewhat disheartening to devote time in the preparation of papers, many of them of great merit, without a chance of their appearing, except in the columns of some local paper, whose circulation is limited. We think that reasonably the subscription of members might be increased. This tax would be borne with cheerfulness if a return in the shape of a volume of transactions was to be ensured. Any undertaking of this nature would be attended with considerable outlay, but the general good to be derived therefrom would be quite equal to the comparative trifling addition to each man's subscription. All members of the profession in good standing are eligible to election as members of the Association, and we trust that their number will greatly increase at this meeting. We give below the circular of the Secretary of the Association, which we believe has been very generally distributed.

CANADA MEDICAL ASSOCIATION.

New building of the Windsor Hotel, Wednesday, 12th September, 10 a.m.
The following papers will be read :—

The President's address.
Crime and Insanity, by Dr. Joseph Workman, Toronto.
Ovariotomy, by Dr. Rosebrugh, Hamilton.
Vital Statistics, by Dr. A. B. Larocque, Montreal.
Pernicious Anæmia, by Drs. Osler & Bell, Montreal.
Vesico-Vaginal Fistula, by Dr. Trenholme, Montreal.
Addison's Disease, by Dr. Geo. Ross, Montreal.
On large doses of acetate of lead in post-partum and other hæmorrhages, by Dr. J. Workman, Toronto.
Gastrotomy and Ovariotomy, by Dr. E. Robillard, Montreal.
Treatment of Empyema, by Dr. Fulton, Toronto.
Tricuspid Stenosis, by Dr. R. P. Howard, Montreal.
Embolism of Central Artery of Retina, by Dr. Buller, Montreal.
Excision of knee, by Dr. Fenwick, Montreal.
Epithelioma of Eye-lid, by Dr. Alt, Toronto.
Nasal Polypus, by Dr. Reeve, Toronto.
Treatment of Wounds, by Dr. Canniff, Toronto.

And reports from the chairmen of the following committees:
On Surgery, Dr. Richardson, Toronto.
On Obstetrics, Dr. Ross, Toronto.
On Medicine, Dr. George Ross, Montreal.
On Medical Literature, Dr. Howard, Montreal.
On Climatology, Dr. Marsden, Quebec.
On Therapeutics, new remedies, &c., Dr. Fulton, Toronto.
On Necrology, Dr. Osler, Montreal.

Gentlemen intending to read Papers will oblige by at once notifying the general secretary, mentioning the titles thereof, in order that they may be added to the list.

A. H. DAVID, M.D. Ed., general secretary, Canada Medical Association.

We published in our March number an interesting and from a medico-legal stand-point a very important case of Rupture of the Vagina during coïtus. The woman was a patient under Dr. Ross, in the General Hospital, and was seen by several other members of the staff. Although we have every reason to regard the case as reliable in all particulars, yet it is evidently looked upon as apocryphal by some of our contemporaries. Says *L'année Medicale* (de Caen) in copying the report: "We have read of the classical adventure of the American who had fractured his penis the night of his marriage—we now present the companion-picture, strange to say, from America also," and continues, "we can only wonder at the extraordinary vigor of that old man and the bad use he made of it." Thus any statement at all beyond the common, coming from a Canadian source is branded as *American*, and then treated suspiciously as regards its truthfulness—or, as our American cousins themselves would say, *discounted* pretty largely.

CORONER'S INQUESTS.

We have again and again alluded to the slip-shod manner in which coroner's inquests are conducted in this Province. It matters very little indeed in the majority of cases how these inquiries are conducted. The Coroner has considerable discre-

tionary power, and he can, if he thinks fit, hold an inquest, or he can refuse to do so as unnecessary. We make this assertion, as we believe the Coroner occupies the position of judge and counsel in his own court, and he can enter a *nolle prosequi* if he thinks proper. Whether this is the true position or not, practically it is the position assumed on certain occasions by the Coroner of this District.

In the recent case of Emily Burns, who died in the Montreal General Hospital under suspicious circumstances, a few hours after her admission to that institution, it would appear that no attempt was made to clear up the case as to the cause of death. The inquest terminated in an open verdict. After a few minutes deliberation, the jury found that death had proceeded from acute nervous prostration. Dr. Cline, House Surgeon to the Montreal General Hospital, after describing the symptoms which he had observed during life, proceeded to state the results of the post-mortem examination, which he had made in conjunction with Dr. David, which is reported as follows:—

"We examined all the organs of the body, and found no apparent natural cause for death in any of them. We found a fœtus of five or six weeks. I find no positive evidence of poison; the organs did not indicate that poison had been taken. There are a great many vegetable poisons which, given in very small portions, act upon the nervous system principally, and of which no traces could be found after death. Aconite is a very deadly poison; it is said a drachm of the tincture, which is the form in which it is used, is sufficient to cause death. The bottle produced would contain four drachms. Aconite is used as an external application."

Now it strikes us that this report, if correct, is very ambiguous, and that the coroner and jury are not to blame in not proceeding further in the investigation. The physicians, because Dr. David corroborated Dr. Cline's evidence, assert that the unfortunate girl did not die from natural causes; but that there was no positive evidence of poisoning. The organs did not indicate that poison had been taken, but they go on to state, that there are many vegetable poisons which, given in very small portions, act upon the nervous system principally, and of which no traces could be found after death. With such evidence before it, the court had no other conclusion to arrive

at than that the case was clothed in mystery, and that any further investigation would be loss of time and unwarrantable expenditure of public money.

Of course these remarks are based on the report of the inquest which has appeared in the public press, and which we are bound to receive as correct, since no contradiction has followed; although we are aware that certain papers published in this city do not scruple to alter the phraseology and meaning of reports which they receive, and all to suit their own convenience.

THE LATE RIOTS OF MONTREAL.

We publish in this number of the JOURNAL a very interesting article from the pen of Dr. Henry Howard, Medical Superintendent of the Provincial Lunatic Asylum at Longue Pointe, entitled "The late riots of Montreal viewed from a psychological stand-point." We trust the tone of this article will do some good, and that it will tend to allay the irritation which without doubt exists in our community, as well as throughout the country.

Nothing will go further to make a man pause and consider the character of his actions, and induce him to alter his tactics, than the realization that his acts are those of a weak-minded person, or of an insane person. We were much impressed with the gist of Dr. Howard's line of argument, and we do think that if the authorities were to send all *violent* agitators, it matters not whether political or religious, to be taken care of in a lunatic asylum, it would be highly beneficial, and in all likelihood save many valuable lives.

This ought to be an age in which cool deliberate discussion should be permitted on all subjects, and men ought to be sufficiently humanized to be able to face one another in a manly stand-up fight, using only the weapons that nature has bestowed, and let them remember that the tongue is the most harmless and yet the most powerful weapon they possess.

CANADA
MEDICAL & SURGICAL JOURNAL

Original Communications.

AN ENDEMIC OF TYPHUS FEVER IN MONTREAL.

By John D. Cline, B. A., M.D.,
HOUSE SURGEON, MONTREAL GENERAL HOSPITAL.

(Read before the Medico-Chirurgical Society of Montreal.)

As typhus is not a fever of this country, and we have never had it in Montreal except when imported, which has not happened for years, I think these cases are worth reporting. I at first thought that we had discovered an instance of the spontaneous generation of the fever. The conditions in which it prevailed were certainly most favorable for its propagation, if they were not sufficient to produce it *de novo*, the possibility of which is maintained by many able men. I call it an endemic of typhus fever, because its existence seemed to depend on special conditions in a special locality. When these conditions were improved, the fever ceased to spread, and when the cases were removed elsewhere it did not spread by contagion.

J. S., æt. 20, was admitted into hospital on the 29th of January, with symptoms of fever. He had been out of work for some time; had been exposed a good deal to cold, and suffered from want of food. He had been taking refuge at night in the Protestant House of Refuge. Had not beeen feeling well for two or three days, and on this morning felt chilly and then feverish, with pain in the head and back, and inability to eat.

Tongue covered with a white fur, voice husky. Has a slight cough with bronchial expectoration. Cheeks flushed.

Temperature this evening 104⅛°. Ordered pulv. dover gr. x.

Jan. 30*th.*—Temperature 100⅕°. Complains of headache. Ordered a purgative. Evening temperature 102½°.

31*st.*—Temperature 99⅘° Feels well and expects to be able to go out soon. Voice still husky, and he has a cough with frothy expectoration. Lungs on examination found to be free from any physical signs of disease. Evening temperature 103⅗°. Complains of pain in head and back, particularly the latter. Vomited once.

Feb. 1*st.*—Temperature 103½°. Complains of pain in back. An eruption of reddish spots, not raised, appeared to-day on the abdomen and chest, which was mistaken for a copious typhoid rash. No diarrhœa. Slight tenderness of abdomen which is not confined to the right iliac region. Evening temperature 104⅛°; pulse 92.

2*nd.*—Temperature 102°. Did not sleep last night. Eruption has extended to all parts of the trunk, legs and forearms. It is not in the face and neck. It resembles the rash of measles more than anything I have ever seen. The spots are dusky, irregular, not raised, most of them looking like a mottling under the skin. They do do not altogether disappear on pressure. The patient complains very much of pain in the back. Evening temperature 106⅖°. Pulse 88. Ordered Quin. gr. xxx.

4*th.*—Temperature 104⅛°; pulse 112, full but compressible. Tongue very dry and brown. Sordes beginning to collect about the mouth. Ordered 2 oz. whiskey. Rash less distinct. Abdomen still spotted, the spots not raised at all. Evening temperature 104⅘°; pulse 124.

6*th.*—Temperature 106⅛°; pulse 120. Patient lies constantly on his back, extremely prostrate. His eyes are injected. There is subsultus tendinum and stretching of the hands—a picking motion. Tongue is with difficulty protruded, is dry, brown and cracked. The mouth is filled with a quantity of sticky

mucus. Evening temperature, 104½°; pulse 120. Ordered quin. gr. xxx.

7th.—Temperature 103⅘°; pulse 116.

Tremor is increased; hands are constantly twitching, and also head. Eyes are very much injected. Pupils respond well to light. Evening temperature 106⅙°; pulse 140. Gave quin. grs. xi between 8 and 9 p.m. At 11 p.m., temperature was 102½°. Ordered ½ an oz. whiskey every hour. Patient has to be watched closely in his delirium, which is maniacal. He tries to get out of bed in order to escape from his attendants, of whom he is suspicious: says they are killing him. Hands and head are constantly twitching.

8th.—Temperature 104⅗°; Pulse 124. — Patient has been less restless since 4 a.m. There is slight diarrhœa. He evacuates bowels and bladder in the bed. The rash has been fading in colour gradually till it has all disappeared from the legs. There is still a subcuticular rash on the abdomen, chest, and back, bluish in colour, as if tending to be purpuric, not altogether disappearing on pressure. There are some distinct petechial spots on the side of the right buttock. The tremor is so great as to approach in character to a general convulsion. Prostration is extreme. The patient lies on his back, and appears unable to move a muscle voluntarily. The nurse says that in changing his sheets, his limbs get so rigid as to resist bending. Evening temperature 105⅗°; pulse 136. During the night the prostration steadily increased, and he died at 5 in the morning, that is, on the morning of the 12th day of the fever.

AUTOPSY, BY DR. OSLER, SIX HOURS AFTER DEATH.

Body that of a well-built muscular young man. Rigor mortis not present, but at 3.30 p.m. when the body was again inspected, it was well marked. A dusky redness is noticeable in the dependent parts, and to a less extent in the face and cervical regions. There are petechiæ on the side of the right buttock, and a few bluish indistinctly purpuric spots in the left inguinal region.

Brain.—membranes quite natural, vessels and sinuses moderately full. No lymph or pus at the base, or about the upper end of the spinal cord. At the subsequent dissection of the organ nothing unusual was observed about the brain substance or ventricles.

The position of abdominal viscera is normal. No effusion in peritoneum, pleura, or pericardium.

Heart.—Cavities of the right side are full of dark, fluid blood. Small clot in left ventricle, which is well contracted. Orifices and valves quite healthy. On removal of the organ a quantity of dark blood escaped from the cut vessels.

Lungs.—Right lung is crepitant throughout, dark in colour posteriorly from the amount of blood in this situation. Left lung also crepitant in anterior portions, but has a large area of collapse behind in the lower lobe, which, on section contained much blood, and six or eight small patches of apoplexy.

Spleen—weight 390 grms. (nearly 12 oz.), dark in colour. On section, pulp soft, semi-diffluent. Organ had three fissures in anterior margin, one in the posterior.

Kidneys are of average size, contain a considerable amount of blood. Nothing abnormal in their appearance.

Liver, not enlarged. On section, cut surface of a uniform light clay colour, the lobules indistinct, not congested. The larger hepatic veins contain blood. A small amount of bile in the gall-bladder. Tissue soft, easily torn.

Œsophagus, when slit up, presented at the posterior part of the lower third an elongated perforation, $1\frac{1}{2}''$ by $\frac{1}{2}''$, with smooth, thin, darkly-stained edges. The tissue, in the neighbourhood were also stained with blood-colouring matter. This is to be regarded as a post-mortem perforation.

Stomach contains a small amount of liquid foodand mucus. At the cardia the mucous membrane is thin, but, there is no post-mortem solution of the coats. At the pylorus mucous membrane is thicker. Small intestines from duodenum to

ileo-cæcal valve present a perfectly natural appearance. Peyers patches are remarkable for their number and size, even high up in the ileum an elongated one was found two inches in length. There was neither swelling nor congestion about any of them. Nothing abnormal noticed about the large bowel.

I would draw attention to the following characters of this case: The course of the temperature; the day on which the eruption appeared, the fourth day of the fever—becoming fully developed on the fifth day; the measley character of the eruption, its distribution all over the trunk, arms and legs; the dusky-red colour of the spots; the fact that they did not disappear on pressure; the subcutaneous mottling, the spots becoming petechial in some places on the tenth day of the fever; the typhoid character of the fever; the prominence of the nervous symptoms—stupor, delirium, deafness, muscular twitching and tremors, indications of prostration, as also the evacuation of the bowels and bladder involuntarily; the presence of bronchial catarrh and slight intestinal catarrh; and, finally, the post-mortem appearances. As to the latter, there being no definite morbid lesion in typhus, they are chiefly valuable as proving conclusively that the case was not one of typhoid or enteric fever. The dull clay-like lustre of the liver on section which was noticed in this case is described by Wilks and Moxon as being almost characteristic. This is a perfect picture of a typical case of typhus fever.

About the same time a number of cases of fever were sent to the hospital from the House of Refuge, most of which were looked upon as cases of typhoid fever. Some of them, however, presented anomalous symptoms, which attracted attention, and even suggested typhus fever to the attending physician. The occurrence of the case of J. S., in which the diagnosis was positive, after death, recalled to mind these cases.

On January 7th, three women named Clarke, McLeod, and Stewart, who were inmates of the House of Refuge, were sent to Hospital, ill with fever. They were under the care of Dr. Roddick. Of these two died, Clarke after an illness of 11 days, and McLeod after an illness of six days. On the former an autopsy was held, and the case was not found to be typhoid fever

as had been thought; while the latter went to McGill College dissecting-room, where it was examined by Dr. Shepherd and found not to be typhoid. The remaining one of these three, Stewart, recovered. Another striking case was Thomas Irvine æt. 35, admitted under Dr Roddick's care on February 9th, also from the House of Refuge. He had been ill two days before admission, had a bronchial catarrh, an ill-defined, dusky-red rash over the abdomen, chest, and back, accompanied by an indistinct mottling under the skin. Great stupor and considerable prostration, passing fæces and water unconsciously. He recovered. Another case which perhaps should be reckoned in the same category was David Howe, æt. 35, admitted on February 5th, also from the House of Refuge, who had an extensive purpuric rash *with fever*, from which he recovered.

Besides these, in the months of January and February we had five other cases of fever sent to the Hospital from the House of Industry and Refuge, which were called typhoid fever and febricula. This makes in all eleven cases. I do not mean to say that all these were cases of typhus, but I would draw attention to the number of cases of fever, some of which were typhus, coming from one institution in such a short time.

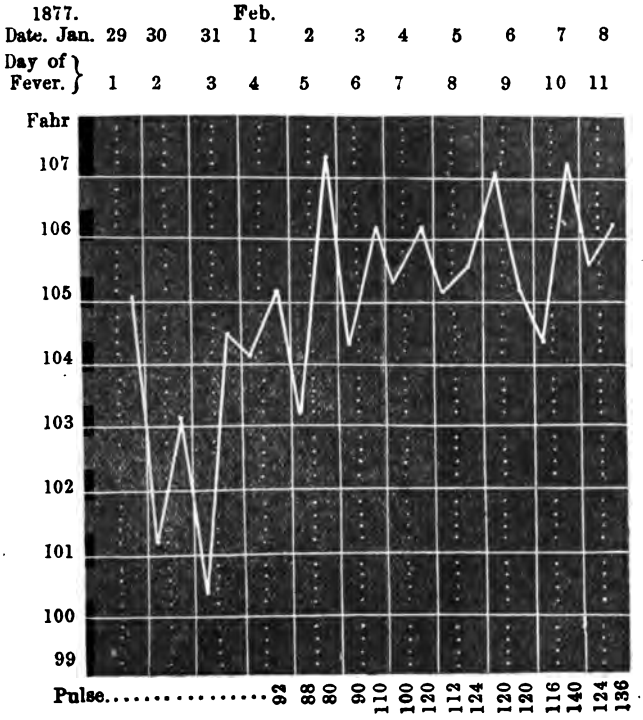
Add to these, two suspicious cases which recovered in the family of Mr. MacMillan, the Superintendent of the House of Refuge, an account of which Dr. MacConnell has furnished me with. A cousin of Mrs. MacMillan, a young woman, was ill with a fever for three weeks, in which there was a mottling of the skin, great stupor and prostration, with not a high temperature, not over 100°; and shortly after her recovery a daughter of Mrs. MacMillan, aged 13, was ill with a fever of the same character. She took it on February 2nd, a rash appeared on the fifth day, over the trunk, legs and arms, mottled and measley in character, the spots not disappearing on pressure; she evacuated her bowels and bladder involuntarily; there was great stupor and prostration, and slight delirium; tremulous hands; temperature 104°; pulse 120 to 140; and a disagreeable odour of breath noticed.

As to the origin of this endemic of typhus it can apparently

TEMPERATURE CHART—TYPHUS FEVER.

JOHN SINNETT, æt. 20.—UNDER THE CARE OF GEORGE ROSS, A.M., M.D., ATTENDING PHYSICIAN TO THE MONTREAL GENERAL HOSPITAL.

(*Continued from page* 151.)



be traced to on old woman named Jane Bennett, who had been an inmate of the Institution, but had been absent for three months, and of whom all trace had been lost for two weeks before she returned to the House of Refuge in December, 1876, She had been in the house, sleeping in the night-refuge part, for a week, when she became ill of the same sort of fever, the Superintendent says, as the others were afterwards ill with, She died on the day after Christmas. A striking circumstance is that the three women, Clarke, McLeod and Stewart, who were sent to the Hospital on January 7th, were the three who attended to Jane Bennett in her illness, and laid the body out after her death. Two of these three, as I have said above, died, I have every reason to suppose, of typhus fever.

The conditions of over-crowding, and filth of people who suffered from exposure to cold and want of food, the conditions in which typhus fever prevails, existed to perfection in the place from which the cases came. The Protestant House of Industry has a night refuge in connection with it. Last winter, when so much want and suffering existed in Montreal, this place was fearfully overcrowded. The place in which the people are put is in the basement, underground, having no ventilation, and very little light. The crowds that slept here last winter were so great that about 88 cubic feet of space was allowed to each person. Can a more veritable "Black-hole" be imagined? If many such places were allowed to exist in Montreal, typhus fever would soon be familiar to us.

How it was introduced there can only be conjectured, but I think it must have been through Jane Bennett. Drs. Girdwood and Ross were appointed as a committee by the medical staff of the Hospital to enquire into the origin of the endemic, but they failed to trace it farther back than this case.

PATHOLOGICAL REPORT;

GENERAL HOSPITAL, MONTREAL,

For the year ending May 1st, 1877.

By William Osler, M.D.

(*Continued.*)

Alimentary Canal—Tongue. *Epithelioma.*

Case xlv.—*Epithelioma of right side of Tongue, extending from base to near the apex. Removal of organ with galvanic ecraseur. Suppuration beneath cervical fascia. Pyæmia.*

J. L., æt. 36. (For Clinical report see *Can. Med. & Surg. Journal*, Feb. 1877.) The tissues of the neck behind the deep fascia, principally on the right side and in front, are uniformly infiltrated with pus, which extends also to the anterior mediastinum. There is no definite collection of pus.

Lungs.—Left, healthy looking. Middle and part of the upper lobe of right are firm to the touch, non-crepitant, and the surface section is bathed with a sero-sanguineous fluid. A small purulent focus exists at external part of middle lobe, not an accumulation of pus, but an area 1″ by ¾,″ irregularly infiltrated.

Case xlii.—*Epithelioma of Tongue. Secondary nodules in liver.*

A. B., æt. 72.—Tongue almost entirely eaten away by the cancer, the base only remaining. The tissues in the neighbourhood are involved and the internal surface of the lower jaw on both sides is much eroded. Epiglottis and larynx not affected. The *liver* contains three masses of secondary cancer, the largest the size of a horse chestnut, situated superficially and presenting the usual characters of these growths.

The *lungs* present caseous masses at the apices. *Heart* somewhat atrophied. *Spleen* very small, weighing scarcely two ounces.

PHARYNX.—*Miliary Tuberculosis.*

CASE LXXX.—*Chronic Phthisis. Miliary tubercles in lungs and pharynx.*

A. G., æt. 22. *Lungs;* upper lobes riddled with communicating cavities, one of which, the size of a small egg, is filled with a clear, somewhat viscid, jelly-like material. Numerous tubercles and caseous nodules in the lower lobes. *Pharynx.*—Scattered over the posterior and lateral walls are numerous small, firm., granulations, which on examination prove to be miliary tubercles. They are confined to the pharynx. There is no ulceration and the larynx is not involved. With the exception of two suspicious spots in the cortex of the right kidney, the other organs are unaffected.

In another case of chronic phthisis the same condition of the pharynx was observed, and without ulceration.

Remarks.—These cases are of interest as showing the existence of extensive miliary tuberculosis in th epharynx without ulceration, and without involvment of the larynx. The condition is by no means common in phthisis. Attention has recently been directed to the subject in an able article by Fränkel.*

ŒSOPHAGUS.

Post-mortem digestion.—In CASE LXIX, a man dead of Typhus fever, an oval perforation of the œsophagus at the posterior wall, just above the diaphragm, was found. It extended 1½″ in length by ½″ in breadth; the edges thin, dark in colour, not at all congested. A small amount of fluid was in the tissues of the posterior mediastinum. The stomach contained semi-digested food, and its mucus membrane was softened.

STOMACH.—*Cancer.*

CASE XXIV.—*Cancer of the cardiac orifice, involving the œsophagus. Secondary masses in other parts of the organ.*

M. H., æt. 52.—*Stomach.*—The cardiac orifice is blocked by irregular cancerous projections from the mucosa, so that the

* Ueber die Miliartu berculose des Pharynx. "B rliner Klin. Wochenschrift," Nos. 46 and 47, 1876. See CAN. MED. & SURG. JOURNAL, Feb. 1877.

tip of the forefinger is with difficulty introduced. The growth appears as an annular ring, extending for about an inch above and below the orifice. The walls are here much thickened, and the distinction between the coats lost; the surface of the cancer is much ulcerated. For a distance of an inch or more the mucous membrane of the lesser curvature appears healthy, but between this and the pylorus is a long, flat, cancerous mass, not ulcerated. A string of projecting nodules extends along the greater curvature, and on the posteror wall is a thick, flat mass beginning to ulcerate on the surface.

The growth corresponds in histological character with medullary cancer. No secondary masses in any of the other organs.

CASE LXII.—*Medullary Cancer, involving the pyloric zone of the stomach. Perforation, peritonitis.*

F. M., æt. 33, had had for some time indefinite gastric symptoms, accompanied with occasional attacks of vomiting. There was no tumour to be felt externally. He left the hospital, to return a short time after in a condition of collapse.

Abdomen.—Intestines of a bright red colour and covered here and there with flakes of lymph. The omentum is pushed up and lies beneath the costal cartilages. On separating the transverse colon from the stomach a round perforation, about the size size of a sixpence, is seen in the latter, through which the contents of the organ escape.

Stomach.—On opening the organ a large, irregular, cancerous mass, about $2\frac{1}{2}$" in width, extends around the pyloric zone, but does not involve the orifice. In the centre of this, corresponding to the lower and anterior part of the greater curvature is a round perforation, the margins of which are thin and of a dark colour. The cancer is moderately firm, much raised, the surface ulcerated, especially at the lesser curvature. Though it contains a considerable proportion of fibrous elements, yet the general character of the growth corresponds rather with the medullary form of cancer.

SMALL INTESTINE.—*Incarceration.*

CASE XCII.—*Passage of two feet of the ileum through a loop attached to the sigmoid flexure.*

M. H., æt. 50, taken ill suddenly with vomiting and symptoms of obstruction, which continued 48 hours, when she died unexpectedly in a condition of coma.

On opening abdomen, a small amount of bloody fluid is found in peritoneal cavity. The intestines are slate-coloured, relaxed, smooth, and present no sign of inflammation. On tracing them towards the cæcum it is found that the lower two feet of the ileum have passed through a loop attached to the sigmoid flexure and have become strangulated, being very dark, in places almost black, as if necrosis of the part was beginning. Careful examination of the constricting band shows that it is connected by both ends with the sigmoid flexure, and is composed of fatty and fibrous tissue, looking very like in structure the glandulæ epiploicæ near it. At its upper part, and near the attachment, it is broad, but the part farthest from the large bowel is exceedingly thin. The intestine passes through on the side of the ring next the sigmoid flexure, the lower end of the ileum being uppermost, and nipped about 1½″ from the ileo-cæcal valve. The mesentery passes through on the right side, and at and about the constriction is very dark. The diameter of the ring is about an inch. It is remarkable that though the strangulated portion of the bowel was dark and congested, yet there were no signs of inflammation, or any lymph upon the peritoneum.

Nothing abnormal in other organs.

Ulceration.—Simple.

CASE XCI.—*Round ulcer of duodenum.*

M. G., æt. 12, dead of bronchitis and pulmonary collapse. About 1½″ from the pylorus, on the posterior wall of the duodenum, is a distinct ulcer, the size of a three-penny bit, with slightly raised edges, lying between two valvulæ conniventes. Nothing else abnormal in the intestines.

In two instances—one a case of grey degeneration of the

cord, the other a case of cancer of the uterus—there were simple round ulcers in the ileum.

Typhoid Ulceration and Perforation.—Of seven autopsies in typhoid fever the following are of interest:—

CASE II.—*Perforation of typhoid ulcer during convalescence, owing to an indiscretion in diet.*

A. P., æt. 18, a convalescent for nearly two weeks, during which time the temperature had been normal. A day or two before his intended discharge he eat several mutton chops, and within 24 hours was in a state of collapse from perforation.

Abdomen.—Coils of small intestine of a rose-red colour; several pints of a dirty fluid, mixed with fæcal matter, in the peritoneal cavity. A few flakes of lymph on some parts of the ileum, but the congestion is confined to the coils near the abdominal walls. On carefully examining the intestines a small perforation is seen, situated about eight inches above the valve, and through it fæcal matter exudes. On slitting up the ileum the perforation is found at the bottom of an ulcer about the size of a copper. It is button-hole in shape, 4‴ in length, 2‴ in breadth, and looks like a small transverse rent in the muscular coat. There is no inflammation about the ulcer, but it and the others in the bowel appear healing.

CASE XXVIII.—*Perforation of a deep ulcer at end of second week.*

A. B., æt. 40, had been ill with typhoid fever two weeks; symptoms of peritonitis 18 hours before death.

Abdomen.—Intestines of a vivid red colour, and the general peritoneum inflamed. On carefully working down the coils from the duodenum, no lymph or adhesions are met with until the ileum is reached; on tracing it towards the pelvis, the coils are found matted together and covered with thick greyish-yellow lymph. About a foot from the valve a perforation is seen, fluid fæces of a yellowish colour flowing out, so revealing it.

Intestine.—On slitting up the jejunum and ileum the mucous

membrane is found pale, and in the lower two feet of the latter there are six or eight round, deep ulcers, the largest about the size of a shilling, presenting an irregular perforation. The mucous membrane about the ulcers is not injected, nor are their edges raised.

CASE XCIII.—*Typhoid Fever. Perforation. Peritonitis.*—J. E., æt. 29. In hospital 9 days.

Peritoneum.—Coils of intestine present a vivid red appearance, being covered here and there with flakes of lymph, and stained with fæcal matter. About two pints of a dirty semi-feculent fluid in the cavity. About twelve inches from the valve a perforation is seen.

Intestine.—As the lower part of the ileum is approached there are several ulcers, most abundant in the foot of gut above the valve. Most of these are small and round, not elongated, and have yellowish-stained sloughs adhering to them; about a foot from the valve is one the size of a shilling, which has perforated. In most of them the sloughs are only beginning to separate. Near the valve are six or eight round, punched-out ulcers, the bases of which are formed by the muscular coats of the intestine. No ulceration in the cæcum or colon.

The following also present features of interest, as showing what a slight amount of intestinal disturbance may accompany fatal cases:—

CASE XXXIII.—*Four round ulcers in the ileum. Peyers patches not generally involved. Slight hypostatic pneumonia.*

A. B., æt. 32, a small, feebly developed man. In hospital 8 days.

Intestines.—Several intensely black patches, quite superficial, on peritoneal surface. Mucous membrane of jejunum covered with a flaky, yellowish matter, very closely adherent, and washed off with difficulty. In the ileum, five inches from the valve, there is a somewhat eliptical ulcer, placed rather transversely to the axis of the gut, and about the size of a penny. The base is made up of the circular fibres, and the edges are neither

elevated nor congested. Two other smaller ones are situated close to it, and five inches higher up is a fourth, also small, and having a punched-out appearance. The patches above this are not elevated, but have a peculiar mahogany-brown colour, and on close inspection the individual follicles are seen to be a little swollen. The solitary glands are scarcely visible. No ulceration in the large bowel. *Mesenteric* glands moderately swollen.

CASE XXXIV.—*Slight swelling of Peyers glands, only one small spot of ulceration.*

J. G., æt. 40, a stout man, of intemperate habits. In hospital five days. Temperature not high, and general symptoms not bad; no delirium, but he was excessively timid and nervous, so much so that the House Surgeon expressed the belief that he was frightened to death.

Intestines.—Peyers patches slightly swollen, their bases congested and the follicles in each very distinct. The solitary glands in the neighbourhood of the valve are enlarged. In only one small patch, about a foot from the end of the ileum, is there any trace of ulceration, and on this it is not at all advanced. No affection of the large intestine.

Mesenteric glands a little swollen.

Spleen weighs 15 oz., and is very soft.

Heart.—Right and left segments of aortic semi-lunar valves have merged together, presenting one sinus behind, with an indistinct separation near the attachment to the aorta. Segment a little thickened, but valve sppears competent.

CÆCUM.

CASE XXXII.—*Round ulcer of cæcum, perforation, general peritonitis.*

M. G., æt. 19, a well-built young man. In hospital four days and a half, with symptoms at first like obstruction of the bowels, subsequently those of peritonitis. Three weeks before he had an attack of what was supposed to be strangulation, and from which he recovered.

Abdomen.—General peritoneal surface much inflamed, and of a deep-red colour. On separating the coils of small intestine patches of lymph are met with, uniting them together. A pint of fluid in the cavity. The intestines are swollen and distended, the walls soft and tumified. The inflammation is much more extensive toward the pelvis and in the neighbourhood of the ileo-cæcal valve. Evidences of a bygone peritonitis are seen in the form of slight opacities and puckerings on the serous surfaces, both visceral and parietal.

Small Intestine.—Mucous membrane tumified; otherwise unaltered.

Cæcum.—The inflammation about it is most intense, and the lymph most abundant. On carefully separating it a round patch, 2½″ in diameter, is seen on the abdominal parietes, of a greyish-red colour, and somewhat depressed. Corresponding to the centre of this is a round perforation of the cæcal wall, 1½″ in diameter, the coats of the intestines about it being much inflamed. On slitting up the gut a single ulcer, which has perforated, is seen on the upper and outer wall; its edges are thin, and the mucous membrane about much inflamed. Nothing else noticeable in the large intestine.

Remarks.—Perforation of the cæcum is rather an unusual accident, much more so than perforation of its appendix. In this case the trouble probably originated in an attack of the *typhlitis stercoralis* of Rokitansky, induced by the lodgment of hard masses of fæces. There were evidences about the perforation, between the cæcum and iliac fascia, of inflammation (perityphlitis) of an older date than the general peritonitis; and there can be no doubt that it was in the first illness that the perforation happened, its evil effects being limited by a local inflammation, which subsequently, owing to some not ascertained cause, spread to the general peritoneum. There was a very marked contrast between the area of inflammation immediately about the perforation and that towards the head of the cæcum; the former was darker, more greyish in colour, and the contiguous surfaces were not so easily separated. It is important

to note, with reference to the diagnosis, that the symptoms appeared to point to obstruction of the bowels; doubtless, a more thorough inspection would have satisfactorily decided the question.

Appendix vermiformis.—In three cases there were found in it firm concretions of fæcal matter, oval in form, and about the size of date stones. In Case xxviii., mentioned above, its calibre was obliterated for the first half inch of its length, patent for an inch beyond the obliteration. In another case of typhoid fever, it was also partially closed. It was ulcerated in a case of phthisis, chiefly at the cæcal end, which was almost entirely closed by the swelling of the membrane, in consequenee of which the tube was dilated with the retained secretions, being nearly the thickness of the thumb.

The following is the only instance of perforation noticed :—

CASE LXXXVIII.—*Abscesses in the mesentery. Suppuration of portal vein. Empyema. Perforation of appendix. General peritonitis.*

J. L., æt. 42. History of case subsequently.

Abdomen.—General peritonitis; 80 oz. of turbid fluid removed; intestines covered over with thick yellow lymph, most abundant on the coils of the ileum and on the pelvic organs. The *appendix* lies directly over the promontory of the sacrum, and is about the length and size of the index finger. It is much swollen, and the walls soft. On carefully removing it the fluid contents escape from an oval perforation on the under side, which is adherent to the tissues over the sacrum by thick lymph. On slitting up the cæcum, which is healthy, a probe cannot be passed into the appendix, nor can its orifice be seen. From the side of the latter the probe enters a small sulcus which passes for two or three lines beneath the mucous membrane of the cæcum. About $1\frac{1}{4}''$ from the cæcum is a round perforation, $\frac{1}{8}''$ in diameter, the margins thin and dark-coloured. There is no foreign body or concretion.

PERITONEUM.

Acute Inflammation.—In eleven cases of acute peritonitis, the following were the causes:—Three, perforation of typhoid ulcers; one, perforation of cancer of stomach; one, perforation of cæcum; one, perforation of appendix vermiformis; one, rupture of an abscess in broad ligament; two followed the operation of ovariotomy; one, cancer of the liver; and one followed delivery in a woman with Bright's disease.

Tubercular Peritonitis.

CASE VII.—*Acute tubercular inflammation of the peritoneum. Small caseous mass in left lung.—Right-sided pleurisy. General hyperplasia of the bone marrow.*

J. McT., æt. 35. — Had been a soldier for twelve years, latterly a sailor; admitted in September, 1875, complaining of weakness, loss of appetite, and frequent attacks of vomiting. No albumen in urine. Blood normal. Systolic murmur at apex. No enlargement of abdominal organs. Tenderness on deep pressure along right costal border and ensiform cartilage. The vomiting became more marked, and he had occasional attacks of diarrhœa. The symptoms pointed, though vaguely, to disease of the stomach, either round ulcer or cancer, The vomiting was with difficulty controlled, and patient became very weak and anæmic, the skin slightly icteric. Towards January he got so feeble that he was unable to move from bed, and the vomiting was so persistent as to necessitate feeding per rectum. Through January and February the vomiting became less, and the patient wasted slowly, the case being regarded as malignant disease, involving perhaps the peritoneum. In the beginning of May the peritonitis became acute and general, and he died on the 25th, profoundly exhausted. For some weeks before death hæmorrhages occurred in various parts of the skin.

Peritoneum. 56 oz. of a turbid, slightly bloody fluid, in which are flocculi of lymph, in this cavity. Here and there the coils of intestines are matted together by easily separable adhesions. The transverse colon and stomach are in this way glued together, the former covers also the anterior border of the liver. The

entire peritoneum, except the portion over the stomach, is of a dark red colour, infiltrated, sodden, and readily stripped off from the subjacent tissues. Localized patches of lymph occur here and there upon it. The whole membrane presents a great number of small white areas, flat, not projecting above the surface, and ranging in size from a hemp seed to a split pea. As a rule they are isolated, but occasionally groups are seen. They exist in about equal numbers over the intestines, mesentery, and parietal peritoneum. Beneath the latter are from eight to ten larger white patches, which, on section, have a caseous appearance, are firm to the touch, not encapsuled, and extend to the depth of about $\frac{1}{4}''$. On examination of these small and large white masses, they are found to be almost entirely subperitoneal, and composed of aggregations of corpuscles of a lymphoid character, a little smaller than the colourless blood corpuscles, and with one, rarely two, nuclei. In sections through those on the intestinal wall, the corpuscles are seen to infiltrate to some extent the muscular coats. The mesenteric glands are but little enlarged.

Heart; ecchymoses on pericardium, walls flabby, muscle pale, very little blood in the chambers.

Pleura, 35 oz. of turbid fluid in right sac. Visceral and parietal layers congested, and covered with flakes of lymph. A few ounces of fluid in left sac.

Lungs.—Right, crepitant, except at extreme base. Lower lobe collapsed. Organ contains a good deal of serous fluid. Left, upper lobe crepitant, lower collapsed and œdematous. At anterior border of upper lobe is a firm, somewhat triangular shaped, block of condensed tissue, which on section is made up of a small cavity, looking not unlike a dilated tube, and one or two caseous knots, the lung for a short distance about being solidified, and of a greyish colour. No miliary tubercles in either lung.

Spleen, 5 oz., unaltered.

Liver 2lbs. $2\frac{1}{2}$ oz.. anæmic, and yellowish in colour.

Kidneys, normal in size, but very firm in texture. In the cortex of the right are several small purulent depots, about which the substance is much congested.

Stomach.—Mucous membrane of normal thickness, but is soft and readily torn. No trace of cicatrices or tumour. It contains about a pint of fluid.

Small Intestines contain yellowish liquid fæces; walls are thick, owing to an infiltrated swollen condition of all the coats. Mucous membrane is dark in colour. Peyer's glands not enlarged.

Large Intestine contains large masses of yellowish solid fæces.

Brain presents nothing abnormal.

Medulla of bones.—That of the long bones has a uniform greyish-red colour; nowhere having the yellowish fatty aspect of normal marrow. In the cancellated portions and short bones it had a lighter red colour. On examination there were; (1), red-blood corpuscles, presenting considerable differences in size, some hardly the $\frac{1}{5000}''$ in diameter, and many curiously irregular in form. (2). Ordinary marrow cells, and lymphoid corpuscles, which together constitute the chief mass of the tissue, (3). Nucleated red-blood corpuscles—the embryonal or transitional forms of Neumann, of which in each specimen examined four or five examples were met. They are larger than the ordinary coloured forms and have usually a single nucleus. The colouration of these corpuscles is nearly, if not quite, as marked as in the ordinary forms. (4). Cells containing red-blood corpuscles of which a few examples occurred. There are no myeloplaques.

Clinically, as well as pathologically, this case presents many points of interest. The prolonged gastric irritation, which was the prominent symptom during the first five months of his illness, receives no suitable explanation in the condition found post-mortem. Are we to suppose the peritoneal trouble to have begun with the onset of the symptoms in September, or were these latter due to some constitutional dyscrasia, upon which the affection of the peritoneum was grafted, dating only three weeks before death, when symptoms of acute inflammation of the membrane developed? Certain cases of tubercular peritonitis are notoriously obscure, the symptoms pointing rather to disease of

some viscus coyered by the peritoneum, as the bladder or intestines, than to an affection of the membrane itself: and in this case the gastric trouble may have been caused by the chronic irritation induced during the gradual eruption of the tubercles. The condition, however, at the time of death was rather one of acute peritonitis, as evidenced by the injection and tumefaction of the coats of the intestines, and there was nowhere that matting of the coils together by firm adhesions and tubercular matter which is seen in many cases of chronic tubercular peritonitis; but it is a question whether the recent inflammation may not have been super-added on a membrane already studded with tubercles, though, with the exception of the large masses on the parietal peritnoneum, they did not look very old.

The anæmia and wasting, together with the gastric irritation, presented a clinical picture not unlike certain of those constitutional affections dependent upon some profound alteration in the constitution of the blood, such as pernicious anæmia; and the finding *post-mortem* of a condition of hyperplasia of the bone marrow, I at first regarded as lending support to this view, seeking in it the explanation of the deterioration of the blood; for there can be no doubt that alteration in the medulla of the bones may seriously influence the composition of this fluid. Moreover, the peritoneal affection was not what I had been accustomed to see in tubercular conditions of this membrane, for, with the exception of the large masses on the parietal layer, the tubercles were not firm and nodular in character, but had rather the appearance of localized lymphoid infiltrations. Since the occurrence of this case, however, two other instances have come under my notice of hyperplasia of the bone-marrow in chronic wasting diseases, so that I am now less ready to refer this one to the category of myelogenous affections, and regard it rather as a case of tubercular peritonitis, latent in its course, and towards the end accompanied by an acute inflammation of the membrane, the consequence, probably, of a fresh outbreak of tubercles.

The absence of the tubercles in the other organs is a condition which not unfrequently obtains in this affection.

Reviews and Notices of Books.

Clinical Studies, illustrated by cases observed in Hospital and and Private Practice.—By Sir John Rose Cormack, K.B., F.R.S.E., M.D., Edin., M.D., Paris, Chevalier of the Legion of Honour, Physician to the Hertford British Hospital of Paris, &c., &c. London: J. & A. Churchhill, 1876. 2 vols. 8vo.

This collection of essays by Sir John Cormack, most of which have already been published, now appear together in a new and convenient edition. The writings of this physician have always commanded respect as coming from a man who had invariably cultivated the habit of close and accurate observation. They have always, moreover, been marked by a degree of originality which greatly enhances their freshness and interest. Amongst those which date farthest back, we find the author's inaugural dissertation on the presence of air in the organs of circulation, which was written in the year 1837. The other papers were published at various times between this and quite a recent period. In the first volume we have articles on the fever epidemic of Edinburgh in 1843-44, on cholera, scarlatinous nephritis, puerperal convulsions, infantile remittent, together with several others of considerable medical interest. The second volume contains, besides the inaugural thesis above alluded to, essays upon reflex convulsions of infancy, diphtheria, the paralytic affections of diphtheria, chronic poisoning by chloroform, concussion of the brain, &c. The section devoted to diphtheria is of a recent date and is especially valuable, since it gives the results obtained from the observation of a great number of cases. From the variety of subjects treated, the eminently practical manner in which they are handled, and the profusion of illustrative cases, this collection of Sir John Cormack's will be found by every physician a most interesting literary possession.

The Medical Jurisprudence of Insanity. By J. H. BALFOUR BROWNE, Esq., of the Middle Temple, London. Second edition. Philadelphia: Lindsay & Blakiston, 1876.

The first edition of Mr. Balfour Brown's work appeared in 1871. The fact of a second edition of a book of this *kind* being called for within three years, speaks volumes for the amount of information it contains, and the want which evidently existed for such a work.

The book has been considerably enlarged, and Mr. Browne tells us in his preface that he has re-written and re-arranged it, and reconsidered, and in some instances recast, every proposition; as it is, Lindsay & Blakiston, in their American reprint, present us with a volume of nearly 700 pages. The fact that such an amount of space is taken up by a discussion of the Medical Jurisprudence of Insanity, argues a thoroughness and completeness in the mode of treatment of the subject. In this particular an examination of the book shows that it is not wanting. Mr. Browne speaks not only of the Forensic aspect of insanity but boldly tackles the subject in its medical aspect as well, a perhaps somewhat questionable undertaking for a lawyer.

In a work on insanity by a lawyer we are naturally curious to know what he has to say in defence of the "legal test" against the many attacks which we of the medical profession are constantly making against it. Turning to the chapter on Capacity and Responsibility of the Insane, the first in the book, we are not surprised or disappointed to find that he adopts the views almost universally held in legal circles, and accepts the answers of the judges to the House of Lords at the time of the celebrated trial of McNaughten for the murder of Mr. Drummond in 1843; we quote his words, "Now, we hold that the test of insanity proposed by the judges is sufficient in all cases to discover the punishability of a criminal who labors under mental disease." Mr. Browne argues most ably in defence of this dictum, to which we from the medical standpoint are so much opposed.

In the next chapter the author speaks of the causes of

insanity, and in the first sentence, anticipates and answers the rather natural objection, that the cause of insanity scarcely falls within the scope of a work on medical jurisprudence as discussed by a lawyer, but he excuses himself by asserting, and here we are with him, that an intelligent study of insanity depends very much upon a study of nervous conditions which lead up to it. The following chapters are taken up with classifications of insanity, and a description of the various forms of the disease with the legal relations of each. In chapter xv. the interesting state of somnambulism is taken up. Mr. Browne fully enters into a discussion of the many curious facts recorded of persons addicted to sleep-walking, and also of the dreaming condition. The very important subject of the legal relations of somnambulism, and the responsibility for actions committed in this condition receives its due meed of attention. In the sixteenth and seventeenth chapters of the book, under the heading of drunkenness, the author treats of all forms of unsoundness of mind which may result from the ingestion of alcoholic liquors, from simple intoxication to delirium tremens and *mania à potu*, that paroxysm of acute mania which in some persons is apt to come on as alcoholic intoxication is passing off. Amid much that is good we consider this to be one of the best chapters in the book.

Chapter xxv is devoted to the subject of medical experts, and in the first section the author attacks men like Herbert Spencer and Professor Huxley, who "assert that no good is to be got out of the osteology of thought which lies in mathematics, or the vague knight-errantry of thought which lies chronicled in history, but that in the facts of science alone there is nourishment for minds." After animadverting upon the increased claims of science in general, in these latter days, he proceeds to speak of the claims of science in relation to jurisprudence, which he asserts to be no less grasping, and in no case so much so as where questions of mental health are involved. In this connection Dr. Maudsley comes in for a large share of adverse criticism, seeing that he "is one of the prophets of this new religion of science. He writes perspicuous books without putting

much in them. What is new in his books is of questionable veracity, and what is true cannot lay claim to novelty. Still he writes well, and his books are read, and possibly he is believed in." We should rather think he is believed in and that too to a very considerable extent, seeing that many of the arguments he advances. and the facts he adduces are exceedingly hard to get over, and that the records of criminal law courts during the last two or three decades afford so many instances in which, had medical evidence been allowed to influence the jury we should have had fewer cases of insane people condemned to death, and then snatched from the executioner by the influence of that same science here so much decried. In this same chapter Mr. Browne treats the medical profession to some advice as to their manners in the witness box, and the best mode of giving their evidence. This is, we are bound to say, exceedingly good in its way, but we are afraid with the author that like most advice, it will not be taken. There can be no doubt that if medical men submitted with better grace to the oft-times vexatious examinations to which they are subjected in court, the profession as a body would occupy a much more enviable position before the public.

The author charges the medical profession as a whole with great ignorance on the subject of insanity. To this charge unfortunately we must plead guilty. There are great difficulties in the way of helping students to a practical knowledge of insanity, but we venture to hope that the time is not far distant when our asylums will be made available for clinical instruction of this kind. Such opportutities have within the last few years been afforded the students of certain of the London medical schools, who have been admitted under certain restrictions to the practice of some of the Lunatic Asylums, in and about the British Metropolis.

While there are a good many things in this book that we must find fault with, there is also a great deal that we have to commend. As an exposition of the legal aspects of the subject treated it is probably not equalled by any work in the English language. Having said this much we must also say

that the author manifestly cannot understand, as indeed it was not to be expected, without the long necessary training, the medical aspects of insanity. We sincerely hope we have said enough to induce every medical man, as well as every lawyer, to add this book to his library.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Quinine Exanthem.—Prof. Köbner, of Breslau, reports the case of a large, powerfully built woman, 28 years of age, who was attacked with a syndrome closely resembling that of scarlet fever, whenever she took even a small dose of quinine. The symptoms consisted in a chill, which was sometimes repeated, as a feeling of precordial anxiety, nausea, vomiting, intense headache, high fever, and angina. A few hours after the chill an erythrematous eruption made its appearance on the face, and spread rapidly over the entire body. It was attended by intense burning and itching, by slight œdema of the face, and injection of the conjunctiva. The color disappeared for a moment on pressure. The eruption on one occasion completely covered the entire body; in another it was confluent on the upper part of the body, but discrete on the legs. On this occasion the eruption on the leg was slightly papular, and the lower border of the confluent part was not sharp, but gradually faded into the healthy skin. After a variable length of time, according to the amount of quinine taken, the symptoms abated and desquamation began. The angina affected only the posterior wall of the pharynx, the soft palate and pillars being normal. Three times in the course of five months the patient was seized with these attacks. The first time, the exanthem broke out after 3½ grs. quinine had been taken. As a diagnosis of scarlet fever was made the quinine was continued for eight days, and the eruption persisted for the same length of time. Desquamation

then began, and continued for six weeks, and on the soles of the feet for nine weeks. The fever was high and persistent, and the prostration was very great.

Three months later the exanthem reappeared, after a dose of only 1½ grs. of quinine. The stage of eruption lasted four days, and the desquamation three weeks. The third time the exanthem made its appearance after a dose of only 1½ gr. of quinine. The stage of eruption lasted only two and a half days, and the desquamation fourteen days. The affection this time ran a milder and shorter course than on the two previous occasions.

Dr. Von Heusinger, of Marburg, states that he has met with two cases, in which symptoms entirely analogous to those described above, were produced whenever even very small doses of quinine were administered. In these cases, however, the eruption was confined to the face. Both patients were women. One of them was at one time able to take quinine without inconvenience.—*Berliner klinische Wochenschrift*, May 28th and June 18th.—*Medical Record.*

Treatment of Ranula.—Dr. Panas has frequently succeeded in curing ranula by the injection into the tumour of from four to ten drops of a concentrated solution of chloride of zinc. Among others he cites one obstinate case in which excision, seton and drainage had successively failed; the contents of the cyst were always reproduced, and finally operative interference was abandoned, except when attacks of suffocation rendered palliative puncture necessary. Ten drops of a solution of chloride of zinc, of the strength of one to ten, were injected without previous evacuation of the cyst, and shortly afterwards the injection was repeated with a 20 p. c. solution. In less than five weeks from the time this treatment was begun, a complete cure had been produced. This treatment is applicable to all varieties of mucous and serous cysts. It has succeeded in a case of subhyoid cyst, which had resisted cauterization and the injection of tincture af iodine; it yielded to a single injection of chloride of zinc..— *Le Bordeaux Médicale*, July 31st.—*Med. Record.*

Podophyllin in the Treatment of Hepatic Colic.—The *Gazette de Hopitaux*, of July 7th, says: In a paper published a few months ago in *Lo Sperimentale*, Prof. Bufalini reported two cases of severe hepatic colic that were cured by the use of small daily doses of podophyllin. The first case was that of a woman, 45 years of age, who had suffered for a long time from violent attacks of hepatic colic Her only relief was obtained from the use of active purgatives, which would cause the discharge of large calculi. An enteritis finally set in, which compelled her to stop the use of purgatives. Prof. Bufalini then ordered small doses of podophyllin (gr. one-sixth per diem), and both the hepatic colic and the intestinal catarrh rapidly disappeared. The use of podophyllin was continued for a year, and during that time and the two years that have since elapsed, the colic did not return.

The second case was that of a lady who had suffered for over two years from violent attacks of hepatic colic, and frequently passed calculi. All the usual methods of treatment had been tried without benefit, but the use of one-sixth of a grain of podophyllin per diem was soon followed by a cessation of the attacks, and gall-stones were no longer passed. The use of podophyllin was after a time discontinued, and for eight months afterwards the health of the patient continued good; the attacks of colic then returned, and calculi were again found in the fæces, but on resumption of the treatment they disappeared almost immediately.

To these cases Dr. Mercadié adds that of a lady who suffered for a long time from intensely severe attacks of hepatic colic, that were repeated two or three times a month. He had been unable to do more than relieve her by injections of morphine. He finally ordered a small dose of podophyllin to be taken every night, and since the treatment was begun (two months ago) no attacks have been experienced. During the first fifteen days of this treatment the stools were examined, and several times were found to contain calculi.—*Medical Record*, Sept. 15.

Treatment of Nasal Catarrh.—Dr. Hartmann, of Berlin, recommends the use of Politzer's method for distention of the middle ear, in the treatment of acute nasal catarrh. By the compression of the air in the nasal cavities, the collected secretion in the frontal sinuses and other cavities opening into the nasal fossæ is forced out, and the pains and other disagreeable sensations in the head are thereby greatly relieved. In order to prevent any undesirable effects on the middle ear, the external auditory canals should be closed with the fingers, whereby a too forcible driving outwards of the drums is prevented.

In non-syphilitic ozæna, Dr. Hartmann believes ulceration of the mucous membrane to be very rare, the bad smell being dependent on decomposition of retained secretion. He also believes that the great dilatation of the nasal cavity, which is very frequently found on one or both sides in cases of ozæna, renders the removal of the secretion difficult, and favors its stagnation. Where douches or injections cannot be used, he recommends the use of a small brush, fastened at the end of a flexible wire, to remove the tenacious secretion.—*Memorabilien* Heft 6, 1877.

The Communication of Syphilis from a mother to her Fœtus.—In a clinical lecture delivered at the London Hospital, Mr. Hutchison records some cases bearing on a question which hitherto there has been little positive evidence to decide—namely, the form which syphilis takes in an infant when it has not been precisely inherited, but acquired during intra-uterine life by blood transmission from the mother. The first case was one in which the mother contracted an indurated chancre, about six weeks before delivery. At delivery no eruption had appeared, but soon after it, she suffered from secondary syphilis in a severe form, having a most copious eruption, which showed a tendency to ulcerate. Thus probably during the last weeks of the child's intra-uterine residence the blood of the mother contained the virus in its most

active stage, the exanthem being just about to appear. The infant suffered from severe symptoms at about the same time as the mother. There was nothing in the case, except perhaps the copiousness and pustular character of the eruption in the child, in the least different from what is seen in the hereditary disease. So severe, however, was the affection, that in spite of careful treatment, it withered away and died before the period had been reached at which the inherited form begins to differ from the other.

The second case was one in which the mother contracted the disease from her husband about five weeks before her confinement. About two months after her delivery the infant had a rash, and the mother still had the remains of the primary sore. The mother suffered decidedly, but not very severely, but the father was under treatment for more than a year. Mercury caused diarrhœa in the child, and but little was given. It pulled through, however, and lived to display at the age of five, characteristic interstitial keratitis; it had also syphilitic arthritis, with effusion into both knee-joints, and some persistent thickening of the tibiæ. These have all passed off, and at the age of ten the child is in fair health, but bearing the unmistakable evidence of his taint. In this instance then, the disease in the child, though acquired only just before birth, closely resembled, in all respects the hereditary form.

In the third case the mother came under notice five weeks after delivery on account of a chancre on her tongue. She had first noticed the sore about six weeks before her application, and she was covered with a pustular eruption, which had been out three weeks. The infant was healthy at this time, and remained quite free from symptoms until nearly eight weeks old, when a well-marked syphilitic rash came out. It was treated as usual and recovered. In this instance the mother's blood probably did not become infective till just before her confinement, at the date of her noticing the sore on her tongue.

In a fourth case a woman who had previously borne two healthy children contracted syphilis from her husband during her third pregnancy, but at what exact date was not ascertained.

The child, a girl, came under treatment at the age of twelve with troublesome keratitis. She had characteristic teeth, and there was a history of prolonged symptoms during infancy.

Mr. Hutchinson concludes that it appears probable from these facts that syphilis received by a child in utero is the same disease as that obtained by true inheritance, and that it does not assume the very mild form generally shewn by syphilis transmitted from the fœtus to the mother through blood communication, but it is sometimes of a very severe type.—*Medical Times and Gazette.*—*Obstetric Journal.*

Diphtheritis and Tracheotomy.—(The city of Berlin may fairly lay claim to the unenviable distinction of being the head-quarters of diphtheria. For many years this disease has continued its ravages amongst the youthful population without interruption. This much may be gathered from the annals of one public institution known as v. Langenbeck's Klinik, which has been able to furnish statistics of 567 cases in the period of six years and seven months, dating from January 1st 1870, to July 31st, 1876.

Dr. Krönlein has made these statistics the basis of a lengthy article in von Langenbeck's Archives for Clinical Surgery, of which the following is a *resumé*.—F. B.

If any conclusion can be drawn from the number of cases which occur in Hospital practice, the endemic of diphtheritis which prevails in Berlin has, during the last ten years, been steadily increasing, and to this one endemic all the cases referred to below may, strictly speaking, be considered to belong. This is a point of some importance in the matter of drawing general conclusions, inasmuch as they might not be applicable at other times or in other places, since the character of this disease is known to depend in a great measure on its locality, and other circumstances which need not be mentioned. Hence it must be borne in mind that the following remarks only refer to the endemic diphtheritis such as occurs in Berlin.

Most of the cases were brought to the Hospital in a condition

of more or less advanced asphyxia, and in many death from this cause seemed imminent, so that, as a rule, immediate operation was demanded, *ex indicatione vitali;* but whenever there appeared to be a chance of saving life without tracheotomy the operation was delayed, the object on the one hand being, when possible, to avoid operating merely as a prophylactic measure and on the other, not to allow the case to advance to the last stages of asphyxia before having recourse to surgical interference. In the most desperate cases the principle was never lost sight of that as long as any sign of life existed it was the surgeon's duty to give the patient the only remaining chance of relief, without regard to any circumstances, singly or combined, that might contribute to the apparent hopelessness of the case.

In reviewing the tabulated statistics of the 567 cases, several important questions are suggested ; first as to the total mortality. This we find to be 66.4 per cent., or almost exactly two thirds. Secondly, as to the death-rate during different years and different seasons of the same year. The tables show that, notwithtanding the constant increase in the number of cases from year to year, the mortality, though varying somewhat, as constantly diminished. In the year 1870, it amounted to 77.6 per cent., in 1876 it was only 60.3 per cent. Many circumstances may have contributed to this diminution, to no single one of these, however, could any definite share be assigned, it would therefore be out of place to offer any explanation of the fact. Hitherto nothing approaching to certainty has been determined with respect to the influence of season, and this in the main accords with our experience, though the disease would appear to be more prevalent during the second half of each year than it is in the first; the total number of cases treated in five years between Jan. 1st, and July 1st, being only two-thirds of the number treated during the same period between July 1st and January 1st. The month of June affords the least number of cases, October the greatest, but the percentage of deaths does not seem to be influenced by the season of the year.

The tendency to diphtheritis increases up to that of the third year of life, but after the end of the fourth year diminishes

steadily until the sixteenth year; nearly one-fifth of the whole number occurred in the third and fourth years of life.

The age of the patient is of much importance in a prognostic point of view; from the 7th or 8th year the mortality increases in inverse proportion to the age of the patient, that is to say, the younger the individual the worse the prognosis; from the 8th to the 16th year the rate of mortality remains unaltered.

Of all the cases which occurred during the first year of life 89.4 per cent. died. In the 8th year, the death rate was 44.4 per cent. Of the few cases recorded as occurring after puberty only 25 per cent. were fatal.

Turning now to the question of tracheotomy, it must be remembered that nearly all of the 576 cases were brought to the hospital only after all the ordinary medical means employed with a view to arresting the disease had been tried in vain. The operation was performed whenever indications for its performance were present, in only a very few instances the friends or parents refused their consent and took the child away. There could be no better proof than this, of the popularity which the operation of tracheotomy has attained in Berlin. It was found to be indicated in 504 cases and not indicated in 62 cases. Thus only 10.9 per cent. were not operated upon. In 71 cases occurring during the second year of life the operation was found unnecessary in only one instance; in 34 cases during the 7th year 9 did not require operation. The youngest child operated upon was only three months old.

Of the 504 tracheotomized 357 or 70.8 per cent. died. As already stated, the death rate of all cases diminished year by year; the same satisfactory statement is true of all those in which tracheotomy was done. In 1870 83.7 per cent. died, in 1876 the mortality was only 61.8 per cent. Of the 62 cases not requiring operation only 36 per cent. died,this, however, does not militate against the operation, inasmuch as these cases were altogether less severe than those requiring operation, indeed, the latter group included a large number of essentially hopeless cases. The mortality after tracheotomy in the first years of life was 89.4 cent., in the 12th year it was only 42.8 per cent.

Of 85 cases operated upon during the first and second year of life, eleven recovered; the youngest of these last, only 7 months of age, was brought to the clinic so much asphyxiated that it would undoubtedly have perised in a few minutes if the operation had not been done immediately.

The following table shows the duration of life after admission in all the fatal cases, both operated and unoperated; with regard to the former it will suffice to say that in the vast majority the operation was performed either immediately, or within a few hours after admission, and, therefore, the same figures will indicate, with approximate accuracy, the duration of life after the operation:

Day of death.	Operated.	Not operated.	Totals.	
Day of admission.....	27	2	29	
1st day after admission.	94	3	97	295=78·2 p. c. of all the fatal cases of Diphtherities.
2nd " " "	100	3	103	
3rd " " "	41	1	42	
4th " " "	22	2	24	
5th " " "	8	1	9	
6th " " "	3	—	3	
7th " " "	14	1	15	
8th " " "	7	—	7	46=12·2 p. c. " " "
9th " " "	4	—	4	
10th " " "	6	1	8	
11th " " "	4	2	6	
12th " " "	3	1	4	
13th " " "	2	—	2	
14th " " "	4	—	4	24= 6·3 p. c. " " "
15th " " "	3	—	3	
16th " " "	5	—	5	
17th—33rd " "	10	2	12	12= 3·1 p. c. " " "
Totals,.....	357	19	377	

Certain other points, chiefly of surgical interest, might be elucidated by a careful analysis of so abundant a material, unfortunately however, sufficiently accurate records were only kept of 241 cases to render them available for this purpose.

Of these 241 cases 46 were affected with simple diphtheria of the larynx and trachea without demonstrable exudations or ulceration in the nose or pharynx. In 138 there was also diphtheritis of the pharynx; in 4 of the nose, and in 43 of the pharynx and nose.

On the first 46 tracheotomy was done without delay, with a mortality 71.7 per cent.; of the remaining 195 tracheotomy was

done in 164 ; of these 73.7 per cent. died. Of 31 cases in which the larynx was not involved, and which consequently did not require operation, only 32 per cent. died. Thus it will be seen that whilst the great danger of diphtheria lies in the extension of the disease downwards, it matters little whether the larynx or trachea only are involved, or whether in addition to this the exudation or ulceration is also present in the pharynx and nose, the difference in mortality in favor of the former being only about 2 per cent.

It was seldom possible to form any opinion as to how far the diphtheritic process had extended down the trachea, or into the bronchi, but the wonderful relief afforded by the operation was generally sufficient to show that as a rule most of the obstruction to respiration was situated in the larynx. Immediately after operation the breathing becomes calm and noiseless, and the child sinks into a quiet slumber. Sometimes, although danger seems to be averted the breathing does not become quite free, there may be râles audible a distance. This is an important prognostic sign the mortality being 91 per cent. in cases where the respiration was not quite free after the operation, but only 66 per cent. when this sign did not exist ; that is to say, with perfectly free respiration the prognosis is 25 per cent better than when the contrary obtains.

It often happens that after tracheotomy bronchial casts are coughed up, and that the breathing. which till this event had remained obstructed, suddenly became quite easy, giving rise to delusive hopes of recovery, such cases, almost without exception terminate fatally, for, as a rule, the disease continues to advance and invade fresh portions of the respiratory tract despite the tracheotomy.

In 154 fatal cases out of 310 operations not less than 100 perished from asphyxia, 54 died from gradual failure of the vital powers with unimpeded respiration, or, as in a few instances, from collapse at a later date. This may happen after all danger on the part of the respiratory organs has subsided, the canula having long since been removed.

A difficulty in swallowing without the entrance of food into

the larynx, was a very common symptom after tracheotomy, it was due, probably, to the presence of inflammatory products in the larynx, or both pharynx and larynx, and is to be distinguished by its early occurrence, from the well known secondary paralysis of the pharyngeal and laryngeal muscles. In non-fatal cases this difficulty generally lasted from two to three weeks, whereas the secondary paralysis has a duration of from four to six weeks. Diphtheritis of the wound occured in fifty cases out of the 210 operations, it varied greatly in severity from a slight diphtheritic deposit to a condition of things which could not be distinguished from the most virulent hospital gangrene. In severe cases a peculiar patchy exanthem was observed in the neighborhood of the wound, as well as more extensively over the neck and breast. Albuminuria was also not an unfrequent complication. The operation was always done under chloroform, excepting in cases of complete asphyxia.

After a fair trial as to the merits of the different modes of operating, the superior, *i. e.*, the operation in which the incision is made above the isthmus of the thyroid gland, was always adopted.

No other assistance was required than that afforded by one or several nurses. The operation was often almost bloodless. A cutaneous incision 3 c m in length generally sufficed. So small a wound is nearly concealed by the guard of the canula when it is in place. The surface of the wound around the tube was covered with a thin layer of cotton wool charged with chloride of iron, this spedily forms a firm scab, which for a few days protects the wound against diphtheritic infection. The medicinal agents employed, both after and before operation, were numerous; up to the present time, however, nothing has been discovered capable of arresting the disease after it has once attained a certain degree of development. Often some remedy vaunted as a specific would seem to work wonders for a time, and then under apparently similar circumstances would fail altogether.

The following is a list of the chemical substances most frequently used as local remedies, either singly or combined, in the form of solutions, the strength of which was made to vary in different experiments:—1. Acid boracic; 2. Acid muratic; 3. Alum; 4. Ammon. bromat; 5. Aq. calcis; 6. Aq. chlori; 7. Potass. hypermang; 8. Sod. bibor; 9. Sod. silic; 10. Sod subsulph.; 11. Sod. sulpho. carbol.; 12. Pepsin; 13. Zinc. sulpho. carbol. This does not include the numerous remedies which were tried in some cases but immediately abandoned,

such as nitrate of silver in substance or solution, chloride of zinc, iodide of potassium, Liq. ferri sesquichlor, &c., &c., applied as caustics to the pharynx.

After the month of May, 1874, Aqua chlori became the favorite local remedy, to the displacement almost of all others, because it seemed to give the best results.

Every two hours the diphtheritic pharynx was swabbed with the undiluted aqua chlor, and, at the same time, some of the diluted (aqua chlor. 1, aqua 3) was dropped into the trachea through the canula. This proceeding was continued at night, when possible. Diphtheritis of the wound was best treated with solution of chloride of zinc.

The difficulty in swallowing, which made the administration of food in some instances well nigh impossible, was sometimes overcome by the use of an æsophageal tube. Semi-solid food could often be taken better than fluids.—*Archiv Klinische Chirurgie. Band*, Bd. xxi. Hft. II, 1877.

McGILL MEDICAL SOCIETY.

At a meeting of medical students of McGill College, held April 23rd, 1877, the "McGill Medical Society" was formed, and the following officers elected:—

President, DR. OSLER; *1st Vice-President*, DR. ROSS; *2nd Vice-President*, DR. SHEPHERD; *Treasurer*, MR. VINEBERG; *Secretary*, M. LAWFORD; *Librarian*, MR. D. F. SMITH.

Weekly meetings were held throughout the summer season, at which readings and papers on Medical subjects were given by the members, until the 17th July, when the meetings were closed until the winter session should begin.

Meeting, May 8th:—Reading, Mr. MILLS.
Paper on a case of "Acute Necrosis of the Femur complicated with Pyæmia," Mr. VINEBERG.
May 15th:—Reading, Mr. GURD.
Paper on "Acute Peritonitis,". Mr. CHISHOLM.
May 22nd:—Reading, Dr. OSLER.
Paper on a case of "Amputation of the leg, Mr. HUTCHINSON.
May 29th:—Reading, Mr. GARDNER.
Paper on "Pneumohydrothorax," Mr. STAFFORD.
June 5th:—Reading, Mr. MIGNAULT.
Paper on "Urinary Abscess, Mr. GARDNER.
June 12th:—Reading, Mr. HENDERSON.
Paper on "Spermatorrhœa, Dr. OSLER.
June 26th:—Reading, Mr. G. T. ROSS.
Paper on "Trichina Spiralis, Mr. LAWFORD.
July 3rd:—Reading, Mr. McEACHRAN.
Paper on "Vesical Calculus," Mr. D. F. SMITH.
July 10th:—Reading, Mr. LAWFORD.
Paper on "Rheumatism," Mr. GUERIN.
July 17th:—Reading, Mr. McCORKILL.
Paper on "Congenital Syphilis," Dr. RICHARD McDONNELL.
The meetings will take place fortnightly throughout the winter session.

CANADA

Medical and Surgical Journal.

MONTREAL, OCTOBER, 1877.

ANNUAL REPORT, CANADA MEDICAL ASSOCIATION.

MONTREAL, 12th September, 1877.

The tenth annual meeting of the Canada Medical Association was held this day in the Windsor Hotel, Montreal, when were present Drs. Hingston, President; Robillard, Treasurer; David, General Secretary; Osler, Parker, Botsford, Fenwick, Wilkins, Zimmerman, Canniff, Workman, Playter, Reid, Fulton, Sweetland, Grant, Russel (Quebec), Worthington, Atherton, Hornibrook, Bascom, Michaud, Gibson, Coleman, Mullin, Wheeler, G, W. Campbell, F. W. Campbell, Gardner, Buller, Chevalier, Schmidt, Ross (Montreal), Bell, Larocque, Roddick, McCallum, Howard, Reddy, Reeve, and others.

The PRESIDENT opened the meeting at 10:30. The minutes of the last day's proceedings of last year's meeting at Toronto were read and confirmed.

On behalf of the Committee of Arrangements, Dr. OSLER reported the list of papers to be read, and that the credentials of Dr. Kimball, Lowell; Dr. Wing, Boston, and Dr. Brodie, Detroit, delegates from the American Medical Association; Dr. Adams, Island Pond, delegate from the Maine Medical Society; Drs. Ridley and Covernton, Hamilton Medical and Surgical Society, and Dr. Ecroyd, Union Medical Association of Wellington and Grey, were all correct.

The PRESIDENT welcomed the presence of these gentlemen at the meeting, and requested them to accept seats on the platform, as was also Dr. Workman and others.

The following gentlemen having been duly proposed and seconded, were severally elected permanent members:

Dr. Charles Covernton, Simcoe; Dr. A. W. Proudfoot, Montreal; Dr. Berthelot, Montreal; Dr. Richard MacDonnell, Montreal: Dr. O. C. Edwards, Montreal; Dr. C J. Morse, Montreal; Dr. R. Kennedy, Montreal; Dr. A. Alt, Toronto; Dr. Whiteford, Ottawa; Dr. J. B. McConnell, Montreal; Dr. George Armstrong, Montreal; Dr. F. W. Coleman, St John, N. B.; Dr. B. Levi, Inverness; Dr. J, Perrigo, Montreal, Dr. J. L. Leprohon, Montreal: Dr. A. Johnson, Yorkville, Ont.; Dr. Molson, Montreal; Dr. Wm. McDonald, Montreal; Dr. J. W. Burgess, London, Ont.

On the motion of Dr. ROBILLARD, seconded by Dr DAVID, Dr. Pean, Surgeon-in-chief of the Paris Hospital (France), was elected an honorary member.

Letters of regret at not being able to attend the meeting were read by the General Secretary from Dr. J. T. Steeves of St. John, N.B., and Dr. Daniel Clark of Toronto.

The GENERAL SECRETARY submitted a Report from Dr. Jennings of Halifax on the climate of Nova Scotia, which was referred to the Committee on Climatology.

The PRESIDENT then delivered his address.

Dr. PARKER, seconded by Dr. G. W. CAMPBELL, moved a a vote of thanks to the President for his able and comprehensive address, hoping it would not pass away without producing the good results intended. Dr. Parker hoped it would be published, or at least such portions of it as Dr. Hingston should deem desirable. This motion was carried by acclamation.

Dr. GEORGE ROSS, Chairman of the Committee on Medicine, read the report:—See transactions.

DR. R. P. HOWARD, Chairman of the Committee on Medical Education and Literature, made report:—*See transactions.*

No reports were received from the Committees on Surgery and Obstetrics.

It was then moved by Dr. R. P. HOWARD, seconded by Dr. GRANT: That the Association resolve itself into two sections, one of Medicine and one of Surgery, and these sections meet at two o'clock on each day for the reading and discussion of the different papers, which motion was carried, and Dr. Parker was named Chairman of that of Medicine, with Dr. George Ross as Secretary; and Dr. Canniff, Chairman of that of Surgery, with Dr. McConnell as Secretary.

Dr. GRANT moved, seconded by Dr. GIBSON, that the following members compose the Nominating Committee:—Drs.

Workman, Canniff, Fulton, Sweetland, Fenwick, Worthington, Osler, F. W. Campbell, Rottot, Parker and Botsford, which was carried, and the meeting adjourned for an hour—lunch being served in the hotel.

After adjournment, Dr. WILKINS exhibited his beautiful and extensive apparatus on Practical Physiology and Histology.

Dr. RODDICK exhibited and explained a full and complete set of Lister's antiseptic apparatus.

A. H. DAVID, M.D.,
General Secretary.

The Sections opened at 2:15 P.M.

In the Medical Section Dr. R. P. HOWARD read a paper on "Tricuspid Stenosis," which was discussed by Dr. Hornibrooke and others,—and a vote of thanks, on the motion of Dr. WORTHINGTON, seconded by Dr. MICHAUD, was unanimously passed to Dr. Howard for his very learned and able paper.

Dr. FULTON read an interesting paper on the "Treatment of Empyema," by tapping and the introduction of the drainage tube and the injection of tincture of iodine and carbolic acid.

An animated discussion followed, in which Drs. Parker, Howard, Fuller, Hornibrook and Ross took part. The thanks of the Section were cordially voted Dr. Fulton.

Dr. HORNIBROOK read a paper entitled "Plea of Insanity." Drs. Botsford, Workman and Mullin discussed Dr. Hornibrook's paper, and the result was that the subject was considered a matter for the Dominion Government.

A vote of thanks to Dr. Hornibrook was moved by Dr. BOTSFORD, seconded by Dr. WORKMAN, and unanimously carried.

On motion, it was resolved that all the papers read in this Section this afternoon be referred to the Publication Committee as worthy of being published in the transactions of the Association.

The Section then adjourned.

(Signed) GEO. ROSS, M.D.,
Secretary.

In the Surgical Section,

Dr. ALT read a paper on "Epithelioma of the Eye," which was discussed by Drs. Buller, Coleman and Proudfoot,—and, after a vote of thanks to Dr. Alt, the paper was recommended for publication by the Committee.

Dr. ROBILLARD next read a paper on "Gastrotomy and

Ovariotomy," exhibiting and explaining a complete set of instruments used in these operations which he had brought out with him from Paris, and also a thermo-cauterre of Dr. Paquélon. A cordial vote of thanks was tendered to Dr. Robillard.

Dr. KIMBALL, of Lowell, Mass., made several observations on ovariotomy, and complimented Dr. Robillard on his lucid explanations of every step of the operation.

Drs. Hingston, Thayer and Trenholme also spoke on the operation of ovariotomy.

Dr. REEVE read a paper on "Nasal Polypus," which was ably discussed, and a vote of thanks passed to Dr. Reeve.

On motion, the Section then adjourned.

(Signed) J. B. McCONNELL, M.D.,
Secretary.

SECOND DAY.

September 13th, 1877.

The following members being present: Dr. Hingston, Workman, Hornibrook, Sweetland, Canniff, Osler, Bessy, Thayer, Bascom, C. Covernton, T. S. Covernton, Reddy, Larocque, Leprohon, Gardner, Parker, Fulton, Robillard, Fenwick, Proudfoot, Molson, Mullin, Gibson, Atherton, Worthington, Fuller, Zimmerman, F. W. Campbell, Howard, G. W. Campbell, Schmidt, David, Cline, W. McDonald, and others.

The PRESIDENT took the chair at 10:30.

The minutes of yesterday's meeting were read and confirmed.

Drs. Parker, Grant, Botsford and Brodie of Detroit, Adams of Island Pond, and Workman were requested to take seats on the platform.

The following gentlemen having been proposed and seconded were elected permanent members: Dr. Lamarche, Montreal; Dr. Bullen, Hamilton; Dr. A. B. Ward, Montreal.

On motion of Dr. FENWICK, seconded by Dr. ROBILLARD, Sir J. R. Cormack of Paris, France, was elected an honorary member, and Dr. Botenturst, editor of the *France Medical*, elected as corresponding member of the Association.

Letters of regret at not being able to be present at this meeting were read from Hon. Dr. Ross, Quebec; Drs. Hannington, St. John, N.B., and Rosebrugh, Hamilton; the latter informing the Association that he would have the paper he had

intended reading published, and a copy sent to each member of the Association.

The SECRETARY then read a letter from the Hamilton Medica and Surgical Society, kindly inviting the Association to hold its next year's session in Hamilton.

Dr. WORKMAN called attention to accounts for the yearly subscription not being sent to members, as he knew some who paid for six years at last year's meeting, and would recommend that accounts be sent to every member yearly. This was considered right, and the Treasurer and General Secretary were requested to attend to it.

Dr. CANNIFF, seconded by Dr. LEPROHON, moved that this Association reiterates the opinion expressed at last year's meeting in Toronto, "that a committee be appointed to prepare a memorial to present to the Dominion Government, relating to the subjects of Vital Statistics and Public Hygiene," and that the following gentlemen compose this committee: Drs. Hodder, Hingston, Workman, D. Clarke, Playter and the mover and seconder, which motion was agreed to.

Dr. FULTON as Chairman of the Committee on Therapeutics and New Medicines, then read the report.

Dr. THAYER, seconded by Dr. LAROCQUE, gave notice that he would move, at the next meeting of the Association, "That application be made to the Local Governments to keep three or four heifers in a convenient place, for the purpose of supplying medical men with vaccine virus derived directly from the cow."

Dr. OSLER, as Chairman, laid the report of the Committee on Necrology on the table.

On motion, the report of the Nominating Committee was deferred until 4:30 P.M.

Dr. BOTSFORD reported verbally for the Committee on Climatology.

The Right Hon. Lyon Playfair, C,B., &c., &c., M. P. for the University of Edinburgh, having entered the room, was introduced to the meeting by the President, and requested to take a seat on the platform, and on the motion of Dr. Hingston, Dr. Playfair was by acclamation elected an honorary member of the Association. Dr. Playfair made a graceful acknowledgment of the honor paid him.

Dr. TAYLOR, of Edinburgh, was also requested to take a seat on the platform.

Drs. PARKER, WORKMAN, BESSEY and GRANT spoke on the subject of Dr. Botsford's remarks about Vital Statistics, the

latter stating he thought the Dominion Government would do all in its power.

Dr. WORKMAN read a paper on "Crime and Insanity," which was to have been read in the Medical Section yesterday, but by request was read in General Session.

Dr. MULLIN made a few observations, when it was moved by Dr. HORNIBROOK, seconded by Dr. PARKER, "That in the opinion of this Association it is desirable in all criminal trials, when medical opinion suggests the possibility of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he was insane or not at the time the crime was committed."

Dr. PARKER earnestly supported this motion.

Dr. BRODIE, of Detroit, also addressed the meeting on the subject, and concluded by saying that in his State (Michigan) capital punishment had been superseded by imprisonment for life.

Dr. F. W. CAMPBELL also spoke on the matter, when Dr. Hornibrook's motion was put to the meeting and carried unanimously.

Dr. R. P. HOWARD made a few observations on the question, and gave notice that he would move the following at the next meeting: "That it is in the interest of justice that when post-mortem examinations are to be made, experts familiar with such scientific work should be employed by the Crown when procurable."

The meeting then adjourned.

A. H. DAVID, M.D.,
General Secretary.

The Sections met at 2 P.M., and at 4:30 P.M. the General Session resumed business, the PRESIDENT being in the chair.

The minutes of the morning's meeting were read and confirmed.

Dr. LaChapelle, of Montreal, was elected a permanent member.

Dr. PARKER, as Chairman of the Medical Section, reported that a paper on "Addison's Disease" had been read by Dr. Geo. Ross, which was discussed by Drs. Parker, Zimmerman, Howard and Hornibrook.

A paper on the use of large doses of acetate of lead in post partum and other hemorrhages was then read by Dr. WORKMAN, which was followed by an interesting discussion, in which Drs. Mullin, Howard, David, Reddy and others took part.

Also case of Progressive Pernicious Anemia, by Drs. Bell and Osler. Dr. Larocque began his paper on "Vital Statistics," but was obliged to stop, owing to a message from the President asking the Sections to join the general meeting. It was consequently resolved that the following papers be considered as read and handed to the Committee on Publication:—Dr. Larocque, Vital Statistics; Dr. Playter, Economical Aspects of Public Sanitation; Dr. Proudfoot, Case of Supposed Gummy Tumor of Brain.

In the absence of Dr. Canniff, Chairman, Dr. McCONNELL read the report of the Surgical Section.

Dr. TRENHOLME read a paper on "Vesico-Vaginal Fistula," which was discussed by Drs. Hingston, Fenwick, Godfrey and Grant, and a vote of thanks was proposed and carried to Dr. Trenholme for his paper.

Dr. FENWICK next read a paper on "Excision of the Knee," which was discussed by Drs. Grant, Atherton and Canniff, and a vote of thanks was cordially passed to Dr. Fenwick for his instructive paper.

Dr. BULLER then read a paper on "Embolism of the Central Artery of the Retina," which, on motion, was referred to the Committe on Publication, with a vote of thanks to Dr. Buller for his very able paper.

As the time of the Section was up, Dr. REEVES asked to lay his paper on "Optical Defects" on the table, and, on motion, it was referred to the Committee on Publication.

Dr. Canniff's paper on "Various Wounds and their Treatment," was also referred to the same Committee.

Dr. REEVES placed before the Section a specimen of epithelioma of the eye, with explanatory notes.

A vote of thanks was then passed to Dr. Canniff for the able manner in which he had conducted the business of the Section.

Dr. PARKER called the attention of the meeting to the number of valuable papers that had been offered thereat, for which there was not time to have read, and moved, seconded by Dr. WORKMAN, "That it be suggested to the Committee of Arrangements that for the future the session be of three days, if necessary," which motion was carried unanimously.

Dr. OSLER, on behalf of the Nominating Committee, reported the following gentlemen as the officers for the ensuing year:—Dr. Joseph Workman, of Toronto, as President; Dr. David, of Montreal, as General Secretary; Dr. Robillard, of Montreal, as Treasurer; Dr. McDonald, of Hamilton, as Vice-President

for Ontario; Dr. Worthington, of Sherbrooke, as Vice-President for Quebec; Dr. Cowie, of Halifax, as Vice-President for Nova Scotia; Dr. McLaren, of St. John, as Vice-President for New Brunswick; Dr. Sweetland, of Ottawa, as Local Secretary for Ontario; Dr. F. W. Campbell, of Montreal, as Local Secretary for Quebec; Dr. John Black, of Halifax, as Local Secretary for Nova Scotia; Dr. Atherton, of Fredericton, as Local Secretary for New Brunswick.

COMMITTEES.

On Publication.—Drs. David, Robillard, F. W. Campbell, Howard and Osler.

On Medicine.—Drs. Mullin (Hamilton), Ross and Lamarche (Montreal).

On Surgery.—Drs. Malloch (Hamilton), Grassett (Toronto) and Farrell (Halifax).

On Obstetrics.—Drs. Rosebrugh (Hamilton), U. Ogden (Toronto) and Trenholme (Montreal).

On Therapeutics, New Remedies, and Medical Jurisprudence.—Drs. J. G. Kennedy (Toronto), A. H. Kollmyer (Montreal) and Woodhill (Halifax).

On Necrology.—Drs. Riddel (Toronto), LaChapelle (Montreal) and Burgess (London).

On Medical Education and Literature,—Drs. Ridley (Hamilton), Michaud (Kamouraska) and Howard (Montreal).

On Climatology.—Drs. Playter (Toronto), Larocque (Montreal), Jennings (Halifax) and LaChapelle (Montreal).

The following gentlemen having been proposed and seconded, were duly elected permanent members: Dr. Cowie, of Halifax; Dr. Kollmyer, of Montreal.

The following gentlemen were appointed delegates to the American Medical Association:—

Drs. Botsford, Trenholme and Hornibrook; it being understood that if any other members wished to attend, the President could add them to the list.

Dr. BELL gave notice that he would move at the next meeting to change or amend the by-laws, so that officers of the Association might be elected for each of the Provinces of the Dominion, existing or then existing, such as Manitoba, British Columbia, &c., &c.

The election of the officers for the current year was then

proceeded with, and those recommended by the Nominating Committee were all unanimously elected.

Dr. OSLER called the attention of the meeting to the necessity of having the proceedings of the annual meetings published, and kindly offered to raise a subscription among the members for that purpose, as the funds of the Association were so small that it could not be done in any other way than by subscription.

Drs. Dugdale and Lamarche were named to examine the Treasurer's books and papers.

On motion, the same sum as last year was voted to the General Secretary for his services.

Dr. Wright not being present at the meeting, his notice of motion to alter the by-laws was laid over.

The GENERAL SECRETARY then read a letter from the Hamilton Medical and Surgical Society inviting the Association to hold its next annual meeting in the city of Hamilton, which invitation was cordially received, and on motion it was unanimously resolved, "That the meeting be held next year in the city of Hamilton."

Dr. PARKER moved, seconded by Dr. DAVID, "That the by-law on the time of meeting be suspended so that the meeting at Hamilton be held on the second Wednesday of September, 1878," which motion was unanimously carried.

Dr. MULLIN thanked the Association for having accepted the invitation of the Hamilton Medical Association, and assured the members they would receive a hearty and cordial welcome.

The following gentlemen were named as the Committee of Arrangements, with power to add to their number: Drs. McDonald, Mullin, Malloch, Ridley, and G. L. Mackelcan.

It was moved by Dr. PARKER, seconded by Dr. F. W. CAMPBELL, That the thanks af the Association be given to the Syndicate of the Windsor Hotel for the admirable facilities afforded the Association for its place of meeting, and for the readiness with which its co-operation was afforded," which motion was cordially agreed to.

On motion a vote of thanks was also passed to the Grand Trunk Railway Co., the Intercolonial and the Great Western R. R. Co.'s, and to the Richelieu & Ontario Navigation Co. for their kindness in granting reduced rates of fares to members.

Drs. DUGDALE and LAMARCHE reported having carefully examined the Treasurer's books and papers, and found all correct. The amount received for the past year being $221.33; amount expended, $195.68, leaving a balance in hand of $25.65.

Dr. REEVE, seconded by Dr. ZIMMERMAN, then moved a vote of thanks to the members of the profession in Montreal for their courtesy and hospitality to the members from other places, which motion was carried by acclamation.

Dr. BELL moved a vote of thanks to the Committee of Arrangements for their great labors and the perfect success of them, which was also carried by acclamation.

On the motion of Dr. ZIMMERMAN, seconded by Dr. MULLIN, the President vacated the chair, and Dr. WORKMAN was requested to take it, when Dr. ZIMMERMAN moved, seconded by Dr. MULLIN, "That the sincere feelings of the Association be tendered Dr. Hingston for his affable and courteous bearing while presiding, which calls for our most sincere thanks."

A cordial vote of thanks was passed to Drs. Brodie, Kimball, Wing and Adams, for the honour they had done the Association in being present throughout the Session. Dr. Brodie of Detroit, returned thanks in a few well chosen words.

A cordial vote of thanks was also passed to Drs. Wilkins, and Roddick for having displayed their valuable and interesting apparatus.

The Session then adjourned.

A. H. DAVID, M.D.,

General Secretary Canada Medical Association.

Kenneth Campbell & Co. exhibited Cod Liver Oil selected in Norway, and imported expressly by them for their Canadian trade; Elixirs, Fluid Extracts, and Wafer Capsules. They also exhibited an assorment of 300 varieties of Gelatine-coated Pills, made by the old-established house of McKesson & Roberts, New York, of which house they are agents.

John Wyeth & Brother, of Philadelphia, had an excellent exhibition of their new Dyalised Iron, which is coming largely into use. They also exhibited a variety of Elixirs, and some beautiful Compressed Tablets of Chlorate of Potash. The latter is an elegant method of prescribing this Salt.

W. H. Schieffelin & Co., of New York, exhibited some beautiful specimens of Soluble Pills and Granules, which were greatly admired by the members of the Association. This firm has made arrangements with Messrs. Lymans, Clare & Co. to keep a supply of their specialties on hand.

Obituary.

THE LATE DR. CLINE.

It is with a feeling of the most profound regret that we have to announce the death of Dr. John D. Cline, the well known and much respected House Surgeon of the Montreal General Hospital. This melancholy event took place in the early morning of Saturday, Sept. 29th, after an illness of only five days. Diphtheria—that formidable and so frequently fatal disease—has for some time past been rather prevalent in this city, and consequently many cases had been under treatment in the hospital wards. It was whilst performing his duties connected with the medical care of these patients that Dr. Cline contracted his fatal malady. He died, therefore, like a good soldier of the army of medical science, fighting against disease. He died in harness, in the brave and fearless performance of his duty.

Dr. Cline was admittedly one of the best educated, most thorough, and at the same time most enthusiastic of any of the young medical men of this city, and was universally looked upon by his confreres as a rising man, who, had he been spared, would certainly have taken a prominent place in his profession.

He was born in Cornwall, Ont., and was 25 years of age. After preliminary education at the grammar school of that town he came to Montreal, and having passed through a full curriculum at McGill University, took his B.A. with honors in 1871, and carried off the Chapman gold medal. He subsequently attended the medical classes at McGill, where he was always marked as a most diligent and appreciative student, and finally graduated as M.D. in 1874, taking the Holmes gold medal, which is the highest honor the faculty can bestow. The same year he was appointed House Apothecary to the General Hospital, whence he was promoted in 1875 to Assistant House Surgeon, in which capacity he served until this spring, when the gained his final step and became House Surgeon.

It is, of course, in connection with this great public institution that Dr. Cline is best known. The positions he has held are posts of great trust and great responsibility, and it requires no mean abilities to fill them satsfactorily and as they should be filled. The Governors of the Hospital and the medical staff speak of their late officer in the highest possible terms of praise. His constant and unwearied attention to his patients, his skill and dexterity in giving them assistance, his good, cool judgment, combined with promptitude and readiness to act in emergencies, all rendered him admirably suited for the performance of these highly important duties.

The kindness and sympathy invariably shown by this lamented gentleman to the poor sufferers committed to his charge will be borne witness to by thousands. Many, indeed, owe much of their grateful recollections of the Hospital to the kindly words, the genial, cheerful, manly tones of our late House Surgeon; and expressions of the most heartfelt regret are everywhere to be heard from those who have experienced and have deeply felt his kindness and his watchful care of them.

Dr. Cline had been for the past year Secretary of the Medico-Chirurgical Society of Montreal, and had contributed several papers of much more than ordinary interest and value at the meetings of that Association, the last of which appears in the original department of this number.

In losing Dr. Cline, the medical profession has lost one of its most promising members, the Hospital a valued and trusted officer whom it will be hard to replace, and the poor of this city a kind friend on whose assistance they could always count in time of trouble.

We may scarcely allude to the deep and sacred grief of parents and relatives thus suddenly deprived of a loved and noble son and brother. We are sure, however, that we but speak the sentiments of the profession when we venture to offer the most sincere and heartfelt sympathy in this great and sudden calamity—asking them to believe with us for their comfort, that such good work as his has not been in vain.

CANADA

MEDICAL & SURGICAL JOURNAL

Original Communications.

INTRODUCTORY LECTURE, OCT. 1st.

MEDICAL FACULTY, McGILL UNIVERSITY,

By William Osler, M.D.

Professor of the Institutes of Medicine.

Gentlemen of the Faculty,—The duty of delivering the introductory lecture has this year fallen to my lot, and however opinions may differ as to the necessity or advisability of beginning the session with such an address, there can be no doubt of this—that it affords an opportunity, rarely given, of offering to the assembled students words of welcome, advice and encouragement — an opportunity, the responsibilities of which come home to one with the thought of these young and eager lives just entering upon the serious work of life, and to be influenced for weal or woe, perhaps by what the Introductory Lecturer may say, and most certainly by what we as a Faculty do.

Students of Medicine,—My first duty, then, is to bid you on behalf of the Medical Faculty a hearty welcome; and I do so most sincerely, feeling sure that I express the sentiments of every one of your teachers when I say that you come now into the society, not of mere Professors who will lecture at you from a distance, but of men who are anxious for your welfare, who will sympathize with your difficulties, and also bear with you in

your weaknesses. I can offer no better welcome than to tell you this. I see among you many with whose faces we are all familiar, who return, and not for the first time, to these benches. To such, words of welcome are superfluous; I will only say we rejoice to see you back, we trust with refreshed bodies and invigorated minds, to pursue the work of the session. To those of you who for the first time occupy seats in this class-room the occasion is a memorable one, to which I trust you will look back in after years with exceeding pleasure as the starting point of a career of usefulness and honour. For you we have a special sympathy. Look upon us as elder brothers to whom you can come confidently and fearlessly for advice in any trouble or difficulty.

On such an occasion as the present it is natural that you should expect to hear from me something about the profession of your choice, its position, the prospects it holds out to you, and the relation that you as students bear to it. Probably there are few among you who could give a very logical explanation of the causes which induced you to adopt this in preference to other callings; with one it has been the influence of a friend; with another, perhaps, hereditary predisposition; with a third a sudden inspiration; with another that innate enthusiasm for the science which is akin to the natural gift that makes of one man an artist, of another a musician; an inborn natural fitness for that special work and no other, which the man's surroundings, whether fostering or adverse, can neither give nor take away. From these last arise our greatest men; for others it matters little in what way the impulse has come, so long as the feeling now thoroughly possesses you, penetrating every fibre of your being, that this above all others, is the profession you can most heartily embrace. If, however, any man of you here enters upon it with the idea that it will do as well as another, that other will most probably be better for you. Lukewarmness, bad enough at any time, is simply fatal at the beginning of a life-long career, when it usurps the place of that enthusiasm that should bend the man's whole nature to serve him willingly in the work that he has chosen.

In addressing a few words to you on the position which the medical profession at present holds, I must admit that different men hold very opposite views on this point. Some will tell you that the profession is underrated, unhonoured, underpaid, its members social drudges—the very last profession they would recommend a young man to take up. Listen not to these croakers; there are such in every calling, and the secret of their discontent is not hard to discover. The evils which they deprecate, and ascribe—it is difficult to say to whom—in themselves do lie,—evils, the seeds of which were sown when they were as you are now, sown in hours of idleness, in inattention to studies, in consequent failure to grasp those principles of their science without which the practice of medicine does indeed become a drudgery, for it degenerates into a business. I would rather tell you of a profession honoured above all others; one which, while calling forth the highest powers of the mind, brings you into such warm personal contact with your fellow-men that the heart and sympathies of the coldest nature must needs be enlarged thereby. For consider the practical outcome of all the knowlege you gather; the active work for which your four years' study is a preparation. Will not your whole energies be spent in befriending the sick and suffering? in helping those who cannot help themselves? in rescuing valuable lives from the clutch of grim disease? in cheering the loving nurses of the sick, who often hang upon your words with a most touching trust? Ay! and in lessening the sad sum of human misery and pain by spreading, as far as in you lies, the knowledge and appreciation of those grand laws of health transgressed so ignorantly and yet avenged so fatally.

It cannot be denied that, (excepting the clerical profession, the members of which, in this country at least, can seldom look for the fruit and reward of their labors on this side Heaven), there are fewer great prizes open to the medical man than to others from whom a long and special training is demanded. He is not raised to command his fellow-men; his name is not immortalized in history and song like those of the gallant veterans who wear her Majesty's uniform, and risk their lives for their

country and their Queen; he does not sit among the judges of the land; the high places of brilliant statesmanship are not for him; while the world at large can reward him with little beyond a successful practice in which every dollar that he earns represents its equivalent in hard continuous work. But while the soldier and the statesman win honour and fame, the family physician will draw to himself the love and gratitude of manifold hearts; he will have no enemies, martial or political; and his labours, if directed by a wise and prudent skill, will be for the welfare and benefit of all. Such honours as are open to him lie chiefly within his own profession and the small circle of the scientific world. Among these his name may be as a household word, his opinions may be quoted as conclusive, his writings become standard works; and these honours are very real and very satisfactory. I need only quote such names as Harvey and Hunter, Jenner and Virchow, to show you what I mean. But let the student remember that while influence or party may advance a man in other professions above many superior to himself, the hero in medical research must wholly depend upon his own deservings. To take a foremost place in the wary and critical field of science he must excel.

And these remarks naturally bring me to a consideration of the state of the profession in this country. Though not so advanced in the scientific departments as in the older countries of Europe, yet I think the condition is one for congratulation, for in practical work and in the average of attainments, the members of the profession in Canada yield to those of no other country: and this is what should be desired, for general professional excellence brings about the greatest good to the greatest number. For this we have largely to thank that wise conservative spirit which directed the founders of our medical institutions, and which has ever since remained with the promoters of medical legislation in this country. While across the border the standard of qualifications has been gradually retrograding, and not until now, upon the chaos which resulted from the Free Trade principle applied to medicine, is the light breaking, and with it glimpses of a future full of hope, the people in Canada have

enjoyed the benefit of a uniform medical curriculum, modelled after that adopted in Great Britain, to which all students have had to conform— a benefit which many of our citizens fail to appreciate, having had no practical acquaintance with the opposite condition. Early in the history of this country, before the establishment of universities, the medical men found it necessary for their own protection to organize, and to obtain powers from Government to inspect and verify the degrees and diplomas of persons wishing to practice, and also after a suitable course of study to examine men for their license. With the establishment of medical schools these organizations became, to a large extent, mere registering corporations, though still possessing the power to examine, and to grant licenses. Latterly, however, owing to the increase in the number of medical schools, and the consequent latent distrust in the profession that undue rivalry between these might, as in the United States, lower the standard of attainments, there has been legislation to take in part or altogether from the universities, their power of granting the license to practice with the degree. In the Provinces of Quebec and Ontario the changes are in different stages of development. In the former the first step only has been taken, and while the preliminary examination has been removed from the hands of the universities the power to practice stil laccompanies the degree on its registration. The recent Act of the College of Physicians and Surgeons of the Province of Quebec, while modifying the Constitution of that body to some extent, influences medical education in two ways: 1st, by requiring all students belonging to this Province to pass the matriculation examination of the College, and to spend four subsequent years in the study of medicine, the first session to be attended immediately after the matriculation examination, the standard of which has also been somewhat advanced, French and Literature being now compulsory subjects; 2nd, in nominating visitors to see that the colleges do their work faithfully, and that the examinations are conducted properly. This latter is, in my opinion, a weak point in the recent legislation, but as it is probably only temporary there is

less cause for regret. Passing on to consider the more developed system in connection with the profession in Ontario, incorporated as the College of Physicians and Surgeons of that province, we find there that colleges and schools of medicine are merely teaching bodies, the power to grant license to Practice being vested solely in the Council of the College, and obtainable only by examination. So also the preliminary examination of that body is compulsory upon all medical students of that Province. Opinions differ very much regarding the Ontario Medical Council, and it is not to be denied that as a body the members have laid themselves open to criticism, but no one can question that its existence is fraught with much good to the profession, and that it has influenced medical education very beneficially, and may do so yet more. In the establishment of annual examinations, they have, I think, conferred a boon upon the students, which the students, I am sorry to say, have been slow to recognize. I would urge upon the Ontario men among you to conform in all particulars to the laws of your Province, for you may rest assured of this, that you will have no sympathy from us in any attempts to evade them. Thus the men among you who neglected to present yourselves for the first annual examination last spring, felt aggrieved when the Council determined that your obstinacy should cost you a year. I had letters from several of you expecting sympathy, but you came to the wrong quarter. Breakers of the law must abide by the consequences: though I believe in this instance, as it was the first offence, the Council will permit you to take both the 1st and 2nd year's examination next spring.

In the other Provinces of the Dominion the old system is still in force, and the profession has not such control over its educational matters as in Quebec and Ontario. It seems a pity that a central examining board could not be established for the whole Dominion, but there are serious difficulties in the way, difficulties which I do not think will in this generation be overcome. The best we can hope for will be central examining boards for each Province, a uniform curriculum, a uniformly high standard of examination, and general reciprocity.

Turning from these matters of medical politics, let me try to answer the question which has, I am sure, come to each one of you more than once in the past few days, "How shall I best occupy my time?" To answer this I take to be one of the chief uses of such a lecture as the present. To those of you who now begin the study of medicine this is an all-important period, for what you do this session will probably be an index of what you are capable of doing, and will certainly have a great influence upon your college career. Five subjects will mainly occupy your attention: anatomy, physiology, chemistry, materia medica and botany. The three first constitute the frame-work of medical science, a portion of which must this session be put together,—and allow me to indicate how much. In anatomy you should confine your attention to mastering the bones, ligaments, and muscles, their general arrangement, individual peculiarities, and mutual relations. Do not attempt to do more, but try to accomplish this. Three extremities, at least, should be dissected, which, with the lectures, ought to give ample opportunities for mastering your work in this branch. In physiology you must learn the constituents or components of bones, muscles, and the other textures of the body; the nature and properties of food, and how it is digested; about the blood, the manner of its circulation, and the method of its purification. In chemistry you must master the principles of heat, light, and electricity, and the non-metallic elements. In materia medica, strive to see and handle all the drugs you can, find out what they are made of, and get a notion of the dose of each. Ignorant as you are of disease, a knowledge of their application will be more suitable later on. Botany will be useful to you chiefly as an introduction to materia medica; it is thought necessary that you should be fully acquainted with the structure and organization of plants, the better to appreciate the medicinal virtues of certain of them. Do not, however, regard it, as I have found in the past three years many men do, as the essential subject to be studied in your first session, to the neglect of more strictly professional work. Those who like can take up the structure of animals, zoology and

comparative anatomy, instead of botany; and I have been surprised that so few men do so, for the grasp of principles obtained in a careful study of the form and nature of animals, and the bearing of this upon human anatomy and physiology, is more valuable, in my opinion, than the benefit derived in the study of materia medica from a previous course of botany. One thing, however, do not attempt—to take both; you have not time for that.

Shall you attend lectures in any of the final branches during your first year? Most emphatically, No! It would be as reasonable to ask men to listen to lectures in German when they did not know the language. Some of you, however, having studied a year with a physician, purpose spending but three years in college work, and then you must needs take one or two of the final branches in your first session. If you have been diligent in the preparatory year you may appreciate them, but otherwise it will be so much time wasted.

The question whether the first year student should see hospital practice is different, and one upon which there is less agreement; some believing that he should defer this until the second session, others that he should begin at once. I hold with the latter. An hour spent daily in the out-door department of the hospital in attentively watching the examples of disease brought in will do much, especially if combined with a little instruction, towards educating powers of observation in a student, and giving him a general idea of the names and appearance of many maladies; while every one of you can learn within the next six months to detect fluctuation in an abscess, and how to open it; to recognize crepitation in a fracture; and to master many other little practical details, which you cannot know too soon. My advice to you then on this point is, attend the out-door department of the hospital when you can; the time, from 11 to 12.30, is very convenient, except when you have dissecting to do in the morning.

From these remarks you will see that a full programme is prepared for you, and it is for each one of you to set about the task with energy and determination. Gradually those

difficulties will vanish which at first appeared insuperable. I remember well, when beginning the study of medicine—it is but ten years ago—with what enthusiasm I took my Gray's Anatomy and attempted to master the structure of one of the cervical vertebræ, and though I succeeded in making a little headway, yet the matter seemed so difficult—the bones were indeed very dry—and, turning over the leaves of that ponderous volume, the subject of anatomy appeared so vast that my heart sank within me and I felt despondent. You will also have moments when the way appears rugged and the out-look dark, but never fear; others have succeeded in the face of the same difficulties, and with patience and perseverance you will do so too. Banish the future; live only for the hour and its allotted work. Think not of the amount to be accomplished, the difficulties to be overcome, or the end to be attained, but set earnestly at the little task at your elbow, letting that be sufficient for the day; for surely our plain duty is "Not to *see* what lies dimly at a distance, but to *do* what lies clearly at hand."

To the second, third, and fourth year men among you, I need not enter into the details of the work required in your respective classes. I will only mention here that both materia medica and chemistry may now be passed at the end of the second session, and I would earnestly advise the second year men to take advantage of this. Those who feel competent can present themselves for the practical anatomy examination, so that in this year you will only have chemistry, materia medica, clinics, and, perhaps, one final lecture to take, which will be quite enough if attended to properly. Second year men, as a rule, take too many lectures; this is a great mistake. Four lectures a day are as many as the student can well digest.

And now let me add a word of advice on the method of studying. The secret of successful working lies in the systematic arrangement of what you have to do, and in the methodical performance of it. With all of you this is possible for few disturbing elements exist in the student's life to interrupt the allot-

ted duty which each hour of the day should possess. Make out, each one for yourselves, a time-table, with the hours of lecture, study, and recreation, and follow closely and conscientiously the programme there indicated. I know of no better way to accomplish a large amount of work, and it saves the mental worry and anxiety which will surely haunt you if your tasks are done in an irregular and desultory way. With too many, unfortunately, working habits are not cultivated until the constraining dread of an approaching examination is felt, when the hopeless attempt is made to cram the work of two years into a six months' session, with results only too evident to your examiners.

The science and art of medicine is progressive; therefore colleges and teaching bodies, representing as they do the embodiment of it, must progress with it and that on several lines. Not only must the results of practical and scientific labour in the different departments be incorporated in the lectures, so that in every subject the teaching may keep pace with the times, but new and better methods of instruction and examination must be adopted, and many other improvements made which shall be for the benefit of the student. At this more than at any other time within the past fifty years the leading minds in the profession are occupied with the subject of medical education, and there is an almost universal feeling that in many quarters reform is needed. It is probable that the next decade will see radical changes in the modes of tuition, while practical work will be introduced more and more largely into every department. With all beneficial reform the Medical Faculty of McGill University will sympathize, asking her students to participate therein, believing not in stereotyped forms but in steady onward progress, convinced that—

> "On our heels a fresh perfection treads,
> . . . . . born of us,
> Fated to excel us."

To some recent changes I would briefly call your attention; and first to the practical examinations in anatomy. Though it has always been customary for the Demonstrator to test the knowledge of the student on the subject, while the oral part of

the primary examination was made more or less practical, yet it was felt that something more might reasonably be expected of you. Therefore examinations in practical anatomy have been established, modelled after those of the Royal College of Surgeons, England. Nothing will give you greater confidence when you enter upon practice than an intimate acquaintance with anatomy, and that you can obtain to perfection in our dissecting room. The advantages in this branch are very great; remember that we shall expect proportionate effort on your part. Practical examinations will also be held by the clinical professors in medical and surgical anatomy.

Attendance upon the lectures in hygiene is now compulsory. From 1871, when the course was established, the Faculty felt that, notwithstanding the importance of this subject, they could not reasonably add it to the already numerous compulsory studies. This, however, has now been done, and being a department of medical science so necessary to the well-being of society, dealing as it does so largely with the prevention of disease, there is no cause for regret in this action on the part of the Faculty, save that it binds an additional burden on backs already well laden,—still it is one which if rightly treated will not be hard to carry.

The abolition of Theses is a change which, I am sure, you will all appreciate. They were relics of the past, and though formerly they might have been important means of ascertaining a man's capacity and judging of his fitness for a degree, this is now done in other and more effective ways, and the Thesis had degenerated, as a rule, into a very inferior medical essay quite devoid of originality. At universities where the degree of Bachelor of Medicine precedes the Doctorate, the writing of such an essay for the latter appears reasonable, but where, as at McGill, the M. D. is granted at once, it is superfluous. One regret goes with it. Defence of Theses is no more—a day regarded by candidates with very mixed feelings; an uneasy nervousness about one's own effort, and the criticisms it would call forth; and a natural curiosity to hear the comments upon the productions of brother students. The day, as a rule, was

productive of little good, for the Theses were rarely defended and the best that can be said about it is that it was sometimes a pleasant gathering. Many a joke has been made, and much laughter excited over the mistakes of unfortunate competitors, but occasionally a sensitive spirit has been unintentionally bruised, and has left us with feelings of bitterness which would long mar that pleasant and affectionate remembrance of his university life which we would fain have each one of you carry with him to the end of his days.

At the hospital the attendance is increased to eighteen months, while very important changes have been made in the clinical department whereby the method of teaching has been more systematized. Instead of having clinical medicine daily for the first three months of the session and clinical surgery in the last, arrangements have been completed whereby the two classes will be carried on simultaneously throughout the six months' course, the class taking clinical medicine and clinical surgery on alternate days, having in each subject one lecture weekly in the theatre and three demonstrations at the bed-side. You will find this plan greatly conducive to your advancement, and I look upon it as a strengthening of what has always been a strong point in this school, a point upon which the reputation of any school must mainly depend, viz., the effectiveness of its clinical teaching.

And further, it is no longer taken for granted that you will compound medicines during the summer months either at the hospital or with your preceptors, but you are compelled by law to spend at least six months in so doing, and to present a certificate for the same before qualifying for your degree at the university.

And lastly, the amount of material at our command will enable us to extend the pathological teaching of the school. The system we have followed heretofore was good but incomplete. It is impossible properly to instruct students how to perform post mortems and at the same time demonstrate fully the lesions met with. I purpose this winter establishing a weekly demonstrative class, in imitation, however feebly, of the course conduc-

ted by Virchow in Berlin, in which the material collected may be thoroughly instructive to the final men among you. Pathology is the ground-work of clinical medicine, and if you wish to obtain a true insight into disease never neglect an opportunity to see and handle its effects on the various organs and tissues of the body.

I trust the Medical Society, established during the past summer session, will receive your hearty support. To those of you who take advantage of it the benefit will be inestimable. It affords opportunities which after graduating you can never have of learning how to prepare papers and to express your ideas correctly, while it is also a training in the difficult science of debate.

To a man who has made his start in life, who having chosen his path is now following it day by day, there is something heart-stirring in the sight of a number of young men, such as those who are gathered here, just entering on the race which they will run with such varied powers, with such different results, in the busy arena of the world. For he knows that on such an occasion their hearts must be seething with thoughts of the future and of all that it may be to them. What high hopes swell the breasts before him! What earnest resolves are hidden behind the brave young faces! What steadfast aims are set as the goal which shall reward the worker for each "passionate bright endeavour" that he makes! Surely such thoughts are to each man among you as a trumpet-call, summoning the young recruit to fall into his rank on the battle-field of life. And further, like some soft familiar melody running through the clangour of martial music, the thought of home must needs mingle with all others, till the student's fondest hope is the hope that he may be the pride of those who have cherished him from his childhood; his firmest resolve the resolve to do nothing unworthy of their trust in him; his holiest ambition to satisfy their loving desires for his welfare and advancement.

To those younger ones in such an assemblage as this who are but just entering on college life, the new sense of liberty must be paramount. No longer subject to the narrow rules of school-boy

days and to the penalties that enforce them; released from the gentler, but no less real, restraints of home; bound only by the laws of his Alma Mater, which demand little from him that he would not willingly give, the youth feels himself for the first time his own master, and the sense of freedom rouses the growing manhood within him and gives impulse to that self-reliance and independence of action that in after years brace the man for the deeper responsibilities of life, when the power to choose is no longer a delightful novelty, but an anxious care.

So much for the inspiriting feelings which animate the student at the beginning of a fresh course; but I am sure many can bear me out in saying that these are not all. The fear of failure underlies every effort, and this fear must be specially present to those who run the competitive race of a university career, in which a man naturally desires, not only to reach the standard which shall secure him his degree but also to take a high place among his fellows. This fear of failure abides with some, paralyzing their energies and growing more burdensome as time wears on and their test day is near. But let the student take courage; for though in the nature of things only one man can carry off the highest honours, I doubt if there be one among you who cannot come out well at the end of the session if he will only work as he ought. Remember, moreover, that:

> "E'en when the wished end's deny'd,
> Yet while the busy means are ply'd,
> They bring their own reward."

Looking round upon you all I feel no doubt that the majority are resolved to make good use of their time, to study in earnest, and to take a creditable stand in those examinations which in a few months will test the work of every one of you. How comes it then that so many fall away from such good intentions? Why is it that some barely pass who should come out with flying colours? Why do others fail altogether? Not, as a rule, from want of mental capacity; not from a lack of the bodily stamina necessary for a course of severe study; but rather from a failure in steadfast perseverance. Men begin well;

they are diligent in their attendance at lectures, they throw their hearts into their practical work, they read early and late; but after a time the old temptation comes over them, a temptation as old as human nature itself, one that assails every age and every path in life, the temptation which the old Israelites felt when "The soul of the people was much discouraged because of the length of the way." Men get tired of continuous study, their hearts grow sick under the monotonous daily grind. The more buoyant spirits feel their youth and health strong within them, they relax their rules, they go into society, they begin to spend their evenings in ways more pleasant than in the dry digestion of books; the hard bit of reading is slurred over, the looking up of the lecture notes is put off. "What matter," they think, "it can soon be made up." And so the man becomes an idle man, half-hearted in all that he does, and the grand powers within him lie fallow for want of that earnest persistent exercise of them which alone can bring out their latent strength and make the student all that he might be.

But it would not be fair to attribute all failures to this cause. There are some men who fall short, not so much from want of application as from lack of hopefulness. They do not remember their reading as they wish; they do not grasp scientific principles as they expected; difficulties thicken; they grow somewhat bewildered with the extent and variety of knowledge required, and at last give up in despair that engrossing effort which alone can carry them through. "What is the use," they say, as they shirk the harder points, and lay the blame on the system of instruction which should fall on their want of confidence in themselves. These are commonly men of no brilliant talent, yet their brains would serve them faithfully enough if they would only put forth mettle. Let such believe the truth that fair average abilities, well used, often carry their owner above the heads of abler men—the genius rarely makes a successful practitioner; but the careful hard-working student who feels that he must grind up his subject with plodding pains before he can make it a part of himself, and who acts on this impression, develops the elements of life-long success during his academic course.

To each of you, gentlemen, I would give the same advice. This feeling of disgust and weariness in study, this disheartening sense of want of progress, is natural; be prepared for it, meet it like a man; the mere effort will draw out the energy you hold in reserve, and you may find, perchance, as many a student has found before you, that the duties taken up with distaste become attractive in the doing of them, if only from that sense of victory over the lower self within us which is, I suppose, one of the most exhilarating and comfortable feelings that any man can possess.

Never lose sight of the end and object of all your studies; the cure of disease and the alleviation of suffering. Some of you will soon be placed in the chamber of the sick, by the bed-side of the dying, and the issues of life and death may be in your hands. Think of this now, and while you have time use your talents aright. Your lives will be a constant warfare against a common enemy, implacable, often irresistible, who spares neither age nor sex, and who, too often, as the memories of the past week remind us, turns and bitterly avenges the victories of those who have many a time snatched victims from his grasp.

Gentlemen, our meeting to-day is a sad one, for sorrow is in all our hearts. One* who had endeared himself to us all has passed to that shadow land, which sooner or later awaits each one of us. Stricken down in the flower of his manhood, checked almost at the outset of his professional labours, it is inexpressibly sad that this fine life, so hopeful, so full of promise, should have been thus suddenly removed. This day week his cheerful, honest face was seen in the hospital wards, to-day the mourners follow his body to the grave. I need not recount to you who have appreciated his uniform kindness in the hospital his many good qualities, nor need I speak of the talents to which our university awarded her highest honours; I will rather dwell upon the deep regret of the profession at the loss of one whom we were proud to number among us, and ask the students to imitate that zeal and faithfulness which marked his short career, and which will

* Dr. Climo, House Surgeon, Montreal General Hospital.

long make his memory beloved and honoured among those he served.

In conclusion, gentlemen, let me urge upon you all to work diligently in the pursuit of that thorough knowledge of the science of medicine, which alone will make the practice of it satisfactory. And above all things do not regard the profession as a mere means of earning a livelihood, and so enter upon it simply as a business. It is indeed a pitiable sight to see a medical man neglectful of the higher interests of his profession, and given over wholly to the pursuit of wealth.

Remember, you enter upon a glorious heritage; you will reap where you have not sown, and gather where you have not strawed, and the knowledge which it is your privilege to-day to acquire so easily has cost others much. We are all of us debtors to our profession: let us then be mindful of those that come after and try to add our little fragments to the pile.

And now, remembering that we have other duties towards you than teaching the details of your profession, I would on this occasion earnestly impress upon you the necessity of living upright, honest, and sober lives. The way of the medical student is beset with many temptations, and too often the track he leaves is marked by as many lapses; a zig-zag path,

"To right or left, eternal swervin'."

Above all things be strictly temperate. I will not say that you are in duty bound to give up the use of stimulants altogether —though my own convictions on this point are very strong,— but this I do say, that the slightest habitual over-indulgence is as the small flaw in some dyke that forms the barrier to a mighty flood, which widening day by day, sooner or later drowns every fair promise and brings inevitable ruin.

To the thoughtful among you the speculative aspect of modern science will sooner or later prove attractive. Do not get entangled too deeply. I had rather give each of you good old Sir Thomas Browne's advice: not to let these matters stretch your pia-mater. Lastly, you will not only be better but happier

men if you endeavour to do your duty day by day, not from self interest, not from any outside aim however high, but simply because it is right, content to let the reward come when it will.

"Knowest thou *Yesterday* its aim and reason?
Worked thou well *To-day*, for worthy things?
Then calmly wait *To-morrow's* hidden season,
And fear not thou, what hap soe'er it brings!"

SOME REMARKS

ON

THE MEDICAL JURISPRUDENCE OF INSANITY,

By Henry Howard, M.D., M.R.C.S., Eng.,

Government Medical Attendant to Lunatic Asylum, Longue Pointe.

(Read before the Medico-chirurgical Society, of Montreal, October, 1877.)

Mr. President and Gentlemen,—My object in bringing this subject before you this evening, is in the pleasurable anticipation that the question of insanity will receive consideration from Legislature at the next meeting of our Provincial Assembly, and that we may prompt such legislation to be from a medico-legal standpoint, and not from a legal standpoint only. And let us hope that whatever may be the results of the combined wisdom of those whose duty it is to undertake this important task, that we will have a law founded upon purely scientific grounds, having for its bases benevolence and justice, and for its object, the encouragement of all to try and attain to the highest position of civilization and Christian morality—to do to others as we would that others should do to us.

That we want a law there can be no possible doubt, now, more particularly, that there is such an increase of crime and insanity: when there is so much evil-doing that it would appear as if men could not do right: where some responsible murderers are, under a false plea, escaping the just consequences of their crime, and some irresponsible imbeciles and insane persons are, through ignorance, unjustly punished. You are, no doubt,

aware that it has taken not only years but centuries to have anything approaching to a humane law in any part of Europe on this subject; and even yet the law of lunacy is far from what it should be. And all this through the absurd idea that a judge was the proper person to diagnose a case of insanity, and to declare what was and what was not insanity, who was and who was not morally and legally responsible for his acts. In fact, the old idea was that the lawyer of to-day, when he became a judge to-morrow, no matter through what influence he obtained his high position, from that moment, by something in virtue of his judgeship, was capable of defining the disease of insanity. This was just like the old exploded idea that a king, in virtue of his kingship, cured scrofula by the touch of his royal finger. Well, gentlemen, if these old ideas have gradually exploded, it is due to the gradual development of science and to the gradual discoveries of scientific men, which have culminated in the recognition of the great scientific truth that *body* and *mind* are one—that the mind is as much the product of the mental organization as bile is the product of the liver, and that mind diseased (insanity) is simply body diseased; and that mind deformed (imbecility and idiotcy) is simply body deformed, and the very worst form of deformity that a human being could be born with.

I would not have you understand from my remarks, that these great truths, which I have just mentioned, have been, and are, accepted by all; far from it,—men of the highest intellect and of the highest standard of education, still hold to the old ideas, not from any objections that they have to receive scientific truths, but from a fear that having admitted something, they may possibly be lead into the error of admitting too much. These cautious men are to be respected, for they are, in a great degree, the checks to the wild theorists, who, through their pride of intellect are making shipwreck of established usages that have been the safeguards of society for thousands of years,—and it is those theorists that are bringing sound practical science into disrepute: the science that raises men to the highest moral

standard of civilization, if they have intellects to be raised to that standard.

It is very much to be regretted that when medical men have written upon the subject of the medical jurisprudence of insanity, they have too frequently considered it their duty to attack the judiciary in a very coarse manner, and on the other side the compliment has been returned with compound interest, when the subject has been written upon by lawyers.

No good could be expected to come from such a course of proceedings; it is simply discreditable to both. For my part I can see no reason for a quarrel between the two learned professions. The Judge and Lawyer must yield the point, for public opinion will force it, that it belongs as much to the medical man to diagnose insanity and imbecility, as it does to the judge to administer the law. And the medical man must learn that when called upon to give his evidence as to whether a man is, or is not, imbecile; to give that evidence calmly and dispassionately to the best of his knowledge, and having done that, to take no further interest in the case. What the consequences of the trial may be is no affair of his,—he has nothing to do with it; he has done his duty when he has given his evidence. It is simply disgraceful to see medical men in courts of law taking sides; if they are called upon by the crown, they think their duty is to have the accused condemned; if they are called upon by the defence, they consider it their duty to do all in their power to have the accused acquitted. This is all right for the lawyers, but it is not the duty of the medical man; and it is this that brings them so often under the reproof of the Court. Medical men do more than this:—very frequently, even after a verdict is given by the jury, and sentence given by the judge, they will write to the press and find fault with both one and the other, and try to bring discredit upon the jury and the judiciary. This ought not to be—the medical man is not the judge, he is the witness at the trial. Again, medical men have brought discredit upon themselves and the profession generally, by the absurd statements they have made in Court, when called upon to give

evidence in a case where the plea of insanity has been set up. I have heard medical men display the greatest ignorance and speak the most absurd nonsense. I have heard two medical men, one after the other, describe, accurately, the illusions a man suffered under, and call them hallucinations; and I have heard a most learned and honourable judge accept the statement,—saying, "I understand you—yes, yes; the man evidently, as you say, suffers from hallucination," when there was not one word of evidence that the man suffered from any such symptoms. Another great mistake of medical men is to believe that there is no trouble in diagnosing a case of insanity, and unfortunately it is the most ignorant men in our profession, who fancy they know everything, and who are always prepared to rush into Court and give their evidence. A thoroughly educated and intelligent medical man will accept such a position with great caution; he knows that no one man can know everything in our profession; he knows that no matter how well he may be posted in books, and how good his memory may be in retaining what he has read, that without experience, and a large share of it, he should not go into Court and give his opinion on the mental state of a man under trial for a capital offence. I know I am never called upon to examine a man, and to report upon and give evidence as to his mental state, that I don't feel the most fearful resposibility, lest by any chance I should make a mistake. And if it were possible, I would often cheerfully avoid the responsibility; yet, I am happy to say, my testimony has never been refused by either side, whether for the crown or for the defence. I will report to you three cases, as they were all different, and you will see from them how necessary it is that we should have a law, well defined and specially suited to each individual case, where the plea of insanity is set up in the defence of a person accused of crime.

If my memory serves me right, I believe it was this very month three years ago that I was called upon, by the then Minister of Justice, now the Honorable Sir Aime Dorion, Chief Justice, to go and see and examine a man in prison in Upper Canada, under sentence of death, and make report to him. That Dr

Dickson, of Kingston, would meet me there, and for us to examine the man severally and collectively. The cause of thus being called in was that very strong petitions had been sent to the government, stating that the man was really mad. I remember well how terribly I felt the responsibility. I spent nearly two whole days with that man, and reported that he was not mad, but playing the madman; which he continued to play till the rope was actually round his neck, then he threw off the disguise. I believe if he had not done so, one-half the people of that town, if they could have caught Dr. Dickson and me, would have tarred and feathered us.

The second case was on the 4th of October, 1876. I was instructed by the Hon. Attorney General of the Province of Quebec to see William Murphy, who was confined in the jail of St. Johns, awaiting trial for some capital offence. This man had been brought up for trial in October, 1876, and was found to be insane; he was sent to the asylum at Longue Pointe. When admitted, I found him labouring under acute mania. I sent him back to prison in the month of May, 1877, recovered of his attack. When I visited him in October, 1876, in company with Dr. Howard, of St. Johns, I found no symptoms of insanity in the man, and reported him fit for trial, stating in my report that I did not believe the man ever had possessed a very strong intellect. This man was brought up for trial on the 11th of said month, one week after I had seen him, and found guilty of the crime of which he was accused and sentenced to five years in the Penitentiary—no doubt a very just sentence, and no doubt both jury and judge were satisfied that when he committed the crime he was *sane*, and therefore responsible for his act.

The third case I would draw your attention to, was a young man in the jail of Sherbrooke, awaiting trial for having shot and killed his brother; he was to be tried on Monday, 8th of October, 1877. On Saturday, the 6th, I received a telegram from the Advocate for the defence, who wanted to establish that the man was insane. On examination I found that, properly-speaking, he was not insane, but that he was an imbecile, who never had

any intelligence to loose, and consequently could not be held responsible for the killing of his brother; nevertheless, (as I stated) a very dangerous man to society, being a homicidal "imbecile" that did not know the value of life. I told the Crown prosecutor what my evidence would be before the jury, and he, like a sensible and intelligent man that he is, at once abandoned the case, till he could report to the Attorney-General. Had he been a thick-headed obstinate man he would have gone on with the case, and should the jury have accepted of my testimony, the man would have been acquitted, and a homicidal Imbecile set loose upon society to commit another murder, but as it is there will be no trouble in having the fratricide locked up for life.

You see the difference, gentlemen, in these three cases: the first was a veritable criminal, for he had been tried and found guilty of murder—in fact of the murder of three—but was supposed, by kind-hearted people, to have become mad while awaiting the carrying out of his sentence.

The second case was that of a man, not a criminal but accused, who spent six months in a Lunatic Asylum, and then six months in prison without trial, becoming insane after having committed the crime, and recovering.

The third was an untried Imbecile, who it was certain had shot and killed his brother, yet under existing laws could not be tried for his act.

Now, in these three cases, any mistake on the part of either Lawyers or Doctors would have terminated with either injustice to the accused or to society; so that it was necessary that the whole proceedings should be conducted by all engaged without any prejudice, and simply with the intention of arriving at the truth, without at all considering consequences.

But these cases show also that it is necessary to have a law by which all accused of crime should be tried at the first opportunity for their crime, quite independent of their mental state. They also show that the duty of the judge, jury, and lawyers is one thing, and the duty of the medical man is another, all having separate duties to perform, but uniting for

one great object: to arrive, if possible, at truth. I say if possible, because no matter what caution is taken, no matter what their united wisdom may be, cases can arise where it is impossible to speak with certainty. For example, an epileptic maniac, who had shown no signs of mania say for five or ten years, holds conversation to-day, for a couple of hours, with a particular friend; in one hour after the conversation he kills a man in some lonesome place, and is found and made prisoner for the murder while the blood of his victim is still warm on his hands; and, when made prisoner, shows no sign whatever of insanity, denies the killing, and can show no reason whatever for the act—or says he can show no reason—nor any reason for the blood stains upon him. Now, who on earth can say, positively, that this man was insane when he committed this crime, no man in the world could say so positively; yet he may have been insane, he may have committed the crime under an insane impulse, and labour at the time under the delusion that the man was going to kill him. It would be strong circumstantial evidence in favor of his been insane, if his victim had been to him a perfect stranger, that he had never even seen before, but, on the other hand, if his victim had been one with whom he had been well acquainted, and with whom, it had been well known, he had lived at enmity for years, then there would be strong circumstantial evidence against his having committed the deed in a fit of insanity. Still he might have been insane. What would be the duty of a medical man in such a case? Simply state the facts to the judge and jury, and the judge and jury would have quite enough to do. Afterwards, of course, in such a doubtful case, the accused would have the benefit of the doubt, yet this man *might* have been perfectly sane when he committed the crime, and might possibly have been a wilful murderer. I have at present an Epileptic in the Asylum subject to attacks of recurrent mania, G. J., aged 22, admitted for the second time April, 1877. Had no maniacal attacks since the January previous. One day in June in making my ordinary visit at 2 o'clock, he was well and cheerful, at 6 he made a sudden rush

through the ward screaching, don't let him kill him! and before he could be stopped pushed his two hands out through the panes of glass, cutting them dreadfully, his cry all the time was "Don't let him kill him! will none of you save him?" When I returned in the morning I went at once to see the poor lad, he had just awoke out of a quiet refreshing sleep. I said, "What happened you George my boy?" His reply was "Nothing sir, I was dreaming I saw Kennedy (a lunatic in the ward with him), shooting you in the yard; he had the pistol to your forehead." Now, there is no doubt, but had the poor boy met with Kennedy at the moment of his insane impulse, he would most likely have strangled him, and afterwards when spoken to about the matter, of course, deny it, and tell of his dream. You see how similar this actual case is to the imaginary case I have just supposed for you. I could give you other similar cases to the one I have just given, but this is sufficient.

You now see, gentlemen, the great responsibility that rests upon judge, jury, lawyers and doctors, when the plea of insanity hs set up for the defence of one accused of murder or of any other capital offence. I could tell you of how, in my own day, in the very town I lived, in Ireland, nearly forty years ago, a poor, miserable imbecile was tried, found guilty and hanged for the crime of raping a married woman. The man had no friends, no one to defend him, and had no idea, in the world, of what the whole proceedings meant—even up to his being hanged; the creature had not half the intelligence of a very stupid dog. And it is not so very many years ago since there was a man hanged in Montreal for killing an infant, of whom he was the father and his daughter the mother. Why, he and his whole family were a family of imbeciles, living together like a lot of the lower brutes! What things these two creatures were to hang, as a warning to evil-doers! Hanging two dogs would have produced as great a moral good to society. On the other hand, gentlemen, though I would not if I could, nor could not if I would, give you actual cases of vile murderers that escaped the punishment due to their crime on the plea of insanity, yet there is not the slightest doubt of that fact.

Gentlemen, if I have taken up your time with all these cases, real and supposed, it is to impress you with the fearful responsibility the judge, the jury, and the medical witnesses have where, in a trial for murder, the plea of insanity has been set up for the defence. What law, then, do we want that will, as far as it is possible, secure equal justice to all—justice tempered with mercy? We want a law by which every man shall be, at the earliest possible opportunity, tried for his supposed offence, quite independent of his mental state, whether it be sound or unsound. Let the man be tried, at all events. If the plea of insanity be set up, let the widest possible latitude be allowed to the defending advocate. But let the Crown take the greatest possible caution that nothing in the case shall go wrong; therefore, let the Government have sworn medical experts, men of experience, and let these experts be present at the trial, and hear all the evidence for and against the accused, — and having examined him, let them give their testimony before the judge and jury, not with any desire to either convict or acquit the accused, but simply that the jury may have all the information possible upon which to find their verdict, and the judge all the information possible upon which to pass a just sentence. If the judge and jury are satisfied that the accused was sane when on his trial, but was insane when he committed the crime of which he is accused, why of course he must be acquitted and set free. If they are satisfied he not only was insane when he committed the crime, but insane at the time of trial, he must either be sent to a lunatic asylum, or be discharged when cured; or his friends must give security for his safe-keeping. He must in all respects be treated as an innocent man suffering from a terrible disease. If the judge and jury are satisfied that the accused was *sane* when he committed the crime and became insane while awaiting trial, like case No. 2, let him be found guilty, and sentenced, as if he were sane at the time of trial, but let him be sent first to a Lunatic asylum to be, if possible, cured of his disease. If the accused should be found subject to homicidal fits of insanity, for the sake of society let

his sentence be to be imprisoned for life, in either an asylum or penitentiary. If judge and jury should be satisfied that the accused was a dangerous homicidal Imbecile, like case No. 3, that I read for you, why, of course, sentence him to life-long imprisonment in the Penitentiary, such a creature should never be at large once found to have homicidal tendencies, or tendencies worse than homicidal. As you already know, my theory is that all these criminal imbeciles should be locked up for life, but I would have it done according to law.—But none hanged.

A few remarks, gentlemen, with regard to criminal Lunatics, in a Lunatic Asylum, and I am done. For example, I am obliged to consider every insane person who comes from prison to be a criminal lunatic, whether they have been tried or not: it is no business of mine. My duty is when I consider them fit to be discharged, to send a certificate signed by another medical man and myself to the Honourable Provincial Secretary stating that fact, and His Excellency the Lieutenant-Governor issues an order either to discharge the person or send them back to prison.

Now this places me, or any man that would or may occupy a similar place, in a very false position. These creatures, before they enter, and after they enter the asylum, are told that their discharge depends altogether upon me, and every day there is the everlasting cry, "Doctor, I am well; give me my discharge." This cry comes in every shape and form, and when they get weary in asking for it they come to hate me, and look upon me as an enemy, which is by no means safe or pleasant to me; indeed, I have been more than once struck and had my life endangered. But it is also injurious to the insane person himself, and often retards his recovery. The insane person should know from the beginning that I had no power to grant his discharge—and I should have no power—my simple duty should be to treat them for their disease to the best of my capacity. How, then, you will say, should they be discharged, if the medical attendant should not discharge them? I have spoken of government medical experts; well, a part of the duty of these experts should be to hold, with the medical

attendant, a board at different periods of the year, say every three months, at the lunatic asylums, for the purpose of examining into the mental state of the patients, discharging those whom they found fit to be discharged, and returning to prison those that should be returned for trial. And I hope, for the sake of medical attendants, of proprietors of asylums, who are exposed to unjust criticisms though they were very saints—and above all, for the sake of the insane themselves—that whatever legislation may take place on the subject I have treated of, that these particulars will not be lost sight of; and that the law may accurately define the exact duties of judges, juries, lawyers and medical experts, in all cases where the plea of insanity is set up for the accused; and that it will also accurately define the duties of experts, medical attendants, and proprietors of asylums, as to their several duties—particularly as to who shall be discharged and retained in asylums—and as to when Boards shall be held.

If, Mr. President and gentlemen, I have detained you long, you will make all allowance when you consider the great importance of the subject, and when you remember that, as men of science, we are bound to do all in our power to have humane and equitable laws, and to use every effort to raise the standard of morality and civilisation—the grand standard that all should be taught to aim at, "to do to others as we would that others should do unto us."

At the conclusion of the reading of this paper it was moved by Dr. RODDICK, seconded by Dr. KENNEDY, and carried unanimously:

"That this society desires to express to Dr. H. Howard its thanks for the very practical and suggestive paper just read."

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Aneurism of the Innominate Artery.— Proposed Ligature of Carotid.—Refusal of Patient.—Subsequent Death and Autopsy.—Under DR. FENWICK.—Reported by Mr. J. J. GUERIN.

W. W., æt. 43, was admitted into the Montreal General Hospital on the 14th April, 1877, suffering from a pulsating tumour under the right clavicle, and considerable pain.

He has always been a healthy man—has never had any venereal affection. Has often, however, had very heavy lifting and carrying when following his business, that of an undertaker.

About six months ago he began to suffer from pain in the back of the neck, on the right side, and up the corresponding part of the temple and head. It was paroxysmal in character and sometimes very intense. Its situation varied occasionally, being sometimes located along the right clavicle and shooting out to that shoulder. Three weeks ago he began to have a tickling sensation of the throat, and a short cough without any expectoration. From that time his voice became gradually altered in quality, becoming hoarse and husky as it now remains. A short time ago he had a sudden attack of unconsciousness—apparently syncopal—which, however, was at once recovered from and has not since returned. But it has made him since very timid as regards moving about, for he is always afraid of a similar attack seizing him.

On examination of the chest, strong abnormal pulsation is seen at the right sterno-clavicular articulation. The same may be very distinctly felt by the hand pressed over the same region. When carefully examined by pressing the points of the fingers down above the inner end of the clavicle and in the episternal pit, the smooth, rounded surface of an oval pulsating tumour can be distinctly made out. There is excessive pulsation of the carotid on that side. The apex beat of the heart is of increased

force, and is found in the 6th interspace, ¾ of an inch outside of the nipple line. Heart sounds distinct.—No murmur. A very small area of slight dulness is noticeable at the inner extremity of the right infra-clavicular region. Lungs clear throughout. All the other large vessels were examined but no sign of any other aneurism was to be found. Radial pulses alike. Veins of right arm and side of neck somewhat enlarged and prominent. Pupils equal.

The diagnosis was aneurism of the arteria innominata, probably alone, but possibly involving that portion of the arch from which it springs. It had evidently been increasing rapidly for some time, already pressing upon the recurrent laryngeal nerve to an injurious extent. For this reason, and from the fact that it was the source of very great suffering to the patient, Dr. Fenwick believed that it was proper to treat it by operation. He favored the method of the distal ligature of the carotid, and thought also of using temporary compression of the axillary by an elastic bandage. Consultation of the Hospital staff was held, and the patient advised to submit to the operation. The dangers of the procedure were, of course, explained to him, and after some delay, he finally decided upon refusing to allow any interference. He therefore left the Hospital on the 4th of May, having been somewhat relieved as to pain, for which hypodermic injections had been freely resorted to.

He returned home and continued his usual avocation until the first week in July, when he died quite suddenly.

Autopsy, by Dr. Osler.

On opening thorax, lungs collapse and are not adherent. Thymus is large.

Pericardium looks large, and on opening it the heart is found surrounded by a clot of blood, which, when removed, about filled the hands placed together. The pericardial surfaces are healthy. The ascending aorta is reddened and pouched, but on superficial examination no rupture is seen. The heart and great vessels with the aneurism were removed together, and on dissection the following was found: Heart flabby. Left ventricle large

but walls not much, if at all, hypertrophied; mitral valves a little thick; aortic semi-lunar valves opaque and thick, but competent. The ascending portion of the arch appears dilated, especially in two saccular pouches on the right side, both of which are very thin. On one of these is found a small rupture, about the size of a pin's head, through which the hæmorrhage had evidently taken place into the pericardium. The whole arch is considerably dilated, the intima very atheromatous and rough. The orifice of the innominate is slightly dilated, that of the left carotid very much so. On tracing up the innominate a sacculated aneurism is found springing from the right side of the vessel, the orifice of communication measuring $\frac{3}{4}''$ by $\frac{1}{4}''$. The sac is about the size of the closed fist, and is more than one half obliterated by dense laminæ of fibrin. The right pneumogastric is involved in the wall of the sac. The walls of the right subclavian and carotid arteries are healthy. Nothing abnormal in the other organs

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Extensive compound Fracture of the Skull with loss of bone substance.—Wound of the Dura Mater.—No paralysis or convulsions.—Complete Recovery.—Under Dr. Ross. Reported by Mr. H. N. VINEBERG.

M. S., laborer, æt. 26, was admitted into the Montreal General Hospital on the 11th of May, 1877, with a severe compound fracture of the skull, together with a number of scalp wounds and general bruising of the face and head. He is a strong, muscular, well built man, and of medium height.

It appears that he and a companion, while in a state of intoxication, on the night previous to his admission, had fallen to sleep on the track of the Northern Colonization Railroad, somewhere near Lachute, and were suddenly and unceremoniously awakened by a blow from the cow-catcher of a locomotive. The Engineer could give no account as to how the injury was inflicted.

Condition on admission: The skull wound is $2\frac{1}{2}$ inches long and an inch wide, extending from the right upper angle of

the forehead backwards, irregular in outline and exposing the dura mater for its whole extent. The broken edge of the lower part of the parietal bone is quite movable. At the anterior part of the wound is a small rent in the dura mater, through which some brain matter can be seen escaping. The detatched fragments of the bones were afterwards found by one of the employees on the road. The scalp wounds are three in number, one of them, situated at the back and upper part of the head, is of considerable size, and exposes a portion of denuded skull.

There is considerable ecchymosis of right eye, with some swelling of the upper lid, and slight ecchymosis of left eye. The face presents a number of cuts and abrasions. He is partially conscious, and when asked how he got hurt, replies that he received a blow from a "cow-catcher," but is not very communicative.

Pupils are of normal size and respond freely to light. No paralysis.

Pulse 120, full and strong. Respiration 20, and easy. Temp. 100°. Urine high colored, sp. gr. 1020, contains neither albumen nor sugar.

The edges of the scalp wounds were brought together by silver wire, and the deeper cuts on face by fine silk. Ordered an ice-cap to the head, and to have plenty of milk.

May 12*th*.—Had a very restless night; when dressing wounds to-day, some pus was seen escaping from the anterior part of the skull wound. The scalp is becoming adherent to the dura mater. Removed one of the stitches at this part of the wound to allow free exit to any pus which might form. The other wounds are doing well. Patient is conscious, and gives an intelligible answer to any question put to him. Passes urine in bed. Morning temperature, 97°; evening temperature, 102°. Pulse, 136.

13*th*.—Passed a restless night; not so intelligent to-day; when asked how he feels, he replies "first-rate"; wounds of face almost all united. Takes plenty of nourishment. Morn-

ing temperature, 100.5°; evening temperature, 103°. Pulse, 144.

15*th*.—Rather more conscious yesterday and to-day; passes better nights. Had ol tiglii gtt. ii last night and bowels have acted freely. Still passes urine in the bed; wounds are looking healthy and doing well. Temperature ranges from 99° in the morning to 101° in the evening. Pulse has been gradually falling since last report; to-day it is 104.

16*th*.—Temperature 101.4°. Pulse 132. Patient wanders considerably, but answers questions quite rationally; wounds are granulating and secreting healthy pus; wet pieces of lint were put between the edges of the wound.

17*th*.—Had a very restless night. He is quite delirious to-day. The scalp wound at back of the head is foul looking and there is considerable œdema about it. Superficial redness of the skin of the right side of the face and neck. Bowels moved once last night; ordered ol liglii gtt. ii. Ice-cap removed and ordered carbolic acid dressing. Temperature, 100.6°. Pulse 132.

19*th*.—Had a good night. Is more rational to-day than he has been for the last two days; the redness of face and neck has entirely disappeared, œdema of right eye-lid gone, and for the first time was able to separate the lids. Pupils have a tendency to oscillation, alternately dilating and contracting. Removed a portion of the edges of the posterior wound, which had become gangrenous. Swelling of this part of the head not increased in extent, and when pressed upon, pus escapes from the wound. Takes food well. Had no vomiting. Temperature has only been once above 100° since last report. Pulse 112.

21*st*.—Sleeps well all night. Answers questions at random, but when told two or three times to put out his tongue, he does so. Tongue is large, flabby, and heavily coated with a white fur. Marked oscillation of the pupils. Passes urine and fæces in bed. No signs of any paralysis. Wounds beginning to look healthy again. Temperature 101.8°. Pulse 104.

23*rd*.—He is quite rational to-day, better than he has been

at any time since the accident. Wounds looking more healthy, and pus secreted is beginning to have a more healthy appearance. Temperature 99.8°. Pulse 108. Still passes urine in bed. Tendency to oscillation of the pupils persists.

27*th.*—Swelling at back part of head almost gone, but when pressed upon, pus escapes from the wounds near by. Wounds are all granulating and doing well. He is quite rational now. Temperature 99°. Pulse 92.

June 1*st.*—Scalp wounds almost all closed, with the exception of the posterior one. As there was danger of the scalp over the skull wound closing too soon, Dr. Ross ordered a pledget of dry lint to be placed between the scalp and the skull. Patient is up now for the most part of the day. Tongue moist and clean. Bowels regular. Temperature ranges from 98° to 99.6°. Pulse averages 96.

13*th.*—There is slight œdema of the right upper lid and parts around to-day. Has had no chill nor rigor. Temperature rose yesterday to 100.4° but to-day it is down to 97°. Pulse 80.

15*th.*—Œdema of right upper lid diminished. Slight increase of the swelling of the parts beyond and above the lid, where a seam of fluctuation can be felt. This fluctuation is directly over the course of the anterior branch of the temporal artery. Wounds all healed with the exception of a small portion of the scalp at the anterior part of the skull wound, and a small portion of the posterior wound.

27*th.*—A plate of bone about an inch long and half an inch wide, the thickness of the outer table, came away to-day from the posterior wound. Part beneath presents a healthy, granulating appearance, Dr. Ross removed two spiculæ of bone, which were loose, from the skull wound. The wound is healthy and granulating. Œdema of right side of forehead has entirely disappeared.

August 7*th.*—Discharged, all wounds healed with the exception of a spot, half inch in diameter, at the seat of the posterior wound.

Reviews and Notices of Books.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSSEN, Professor of Clinical Medicine, Munich, Bavaria; vol. xv.—*Diseases of the Kidney.* By Professor CARL BARTELS, of Kiel, and Professor W. EBSTEIN, of Goettingen. Translated by Reginald Southey, M.D., Oxon, London, and Robert Berthelot, M.D., of Philadelphia. Albert H. Buck, M.D., of New York, editor of the American edition; 8vo., pp. 796. New York: William Wood & Co., 27 Great Jones street, 1877.

The first and larger part of this volume is from the pen of Professor Carl Bartels, of Kiel. The author of this paper, we learn, from the sketch of his life, is a self-made man of marked ability and persevering industry. He was the son of a farmer, whose means were so limited as to preclude the possibility of his giving his son Carl the advantages of a thorough education. Young Bartels was forced to become an apprentice to a neighbouring farmer, but after three years he received the position of clerk to a large estate near the city of Altona. He employed his leisure time in study, so that at the end of four years he was enabled to enter the University of Kiel, where he arduously pursued the study of anatomy, chemistry and physics. During the first Schleswig-Holstein war he served as a musketeer, and on the cessation of hostilities he returned to Kiel and pursued his studies. He had almost completed his state examinations when war again called him to the camp, and, as there was a lack of medical men, he received the position of sub-surgeon. After various positions in charge of military hospitals, he at length graduated in December, 1850; and the following spring he supervised the work published by Frerichs on Bright's Disease, being at the time clinical assistant to Professor Frerichs. After Frerichs left Kiel, Bartels remained as assistant at the Medical Clinic—at first under F. Weber, and subsequently under Professor Gaetz. In the summer of 1858 Gaetz died, and the year following Bartels was appointed ordinary professor of the University of Kiel and

director of the Medical Clinic, which position he still retains. He has contributed several papers, chiefly to the periodicals of his country—some of which are on the subject of renal affections.

The first part of this paper by Professor Bartels is devoted to the consideration of the structural diseases of the kidney and the general symptoms of renal affections. These he divides into local symptoms, functional symptoms (which are noticable by the quantity and quality of the urine), and general symptoms—as disorders of the blood, of the nervous system, and of assimilation, as resulting from an arrest or an improper performance of the functions of the kidney; or, in other words, as a consequence of imperfect depuration of the blood in renal disease.

The author then proceeds to discuss the diffuse diseases of the kidneys, and the classification which he adopts, and which he states is based on his own clinical experience, is as follows:

1. Hyperæmia of the kidneys.
   (*a.*) The active. (*b.*) The passive, due to venous stasis.
2. Ischæmia of the kidney and its results (the renal affection of cholera).
3. Parenchymatous inflammation of the kidneys.
   (*a.*) Acute. (*b.*) Chronic.
4. Interstitial inflammation of the kidneys, or connective tissue induration.
5. Amyloid degeneration of the kidneys.

The author admits that this classification is incomplete, as it does not include all forms of diffuse changes that are observed in the kidneys, as he states that there are occasionally cases met with in which these varieties are combined in many different ways, "but it would serve no practical purpose to establish separate divisions for all these mixed forms."

After discussing these several divisions, in the chapter on parenchymatous nephritis, he gives, in a supplement, a description of the acute parenchymatous nephritis of pregnancy. We next come to the second stage, of some writers, of Bright's Disease, or, as our author gives it, chronic parenchymatous inflammation of the kidney. In this condition the author is of opinion that perfect and absolute rest is necessary for their

successful treatment, and he remarks that he has confined his patients to bed for long periods. This, of course, is but following out the dictates of prudence, because, in this condition, there is an excess of urea in the circulating fluid which is not excreted by the kidney, and increased exertion must result in increased tissue metamorphosis.

Professor Ebstein completes this volume by giving us chapters on the following subjects:— Inflammation of the pelvis of the kidney, suppurative nephritis, and perinephritic abscess; tumours of the kidney; foreign bodies in the kidney, pelvis, and ureter; animal parasites, and anomalies in position, form and number of the kidneys. To this is superadded a short discussion on diseases of the renal vessels. This is a most important volume,—and although we must admit that many questions discussed are far from being definitely settled, yet we may remark that the subject-matter of these discussions are fully up to the literature of the day.

The Ear, its Anatomy, Physiology and Diseases.—A practical treatise for the use of Medical Students and Practitioners. By CHARLES H. BURNETT, A.M., M. D., (with eighty-seven illustrations). 8vo. pp.. 615 Philadelphia: HENRY C. LEA, 1877.

In this work another valuable contribution has been made to the already voluminous literature of aural surgery. The author rightly deeming that an adequate knowledge of this difficult and intricate subject can only be attained by a thorough and intimate acquaintance with the anatomy and physiology of the parts concerned in affections of the ear, has devoted the large space of 142 pages to their consideration, and in so doing has availed himself to the fullest possible extent of every modern authority from whom useful information could be obtained. This part of the work, therefore, comprises a pretty complete *resumé* of all that is known or taught by anatomists and physiologists of the present time concerning the structure and function of the human ear, and to those who are interested in these subjects will amply

repay a careful and attentive perusal. The remainder of the work comprising some four hundred and forty odd octavo pages is devoted to a consideration,—first, of the methods and means of examining patients, the properties and qualities of sound, tests of hearing, &c.; second to the diseases of the ear, their diagnosis and treatment. To the busy practioner who, it is to be feared, too often overlooks the importance of making an early and correct diagnosis of disease of the ear, and is apt to be content with prescribing in all cases some form of "ear drops," which, a little reflection would show, must generally be either inert or else more or less harmful in their action; this portion of the work may be cordially recommended, as there is probably no other book of the kind in the English language which contain so concise and yet so complete an account of the numerous diseases to which the ear is liable. We can safely predict that every intelligent medical man who takes the trouble to make himself familiar with the leading facts concerning this class of disease, as given by Dr. Burnett, will not only admit that the time thus employed was far from being wasted, but that the earnest labours of Otologists within the last few years have taken away the sting of reproach contained in the hackneyed phraze that "nothing can be got out the ear but fees and wax."

Admitting the great difficulties which beset the Otologist in the pursuit of his special science, it is only fair to accord all honour to those who have contributed so much towards its advancement, and we feel certain the profession will fully appreciate the author's laudable, and we may add highly successful effort, "to present concisely and clearly the present aspect of Otology, and indicate the direction in which further researches can be most profitably carried on."

There are some parts of the work which seem open to criticism, but on the whole it bears ample evidence of having been well thought out and carefully written. The chapter on chronic catarrhal inflammation of the middle ear, is as usual somewhat disappointing, but this is due to the unfortunate and intractable character of the disease, rather than to any fault in the manner

in which the subject is handled. If the author makes any mistake in discussing the treatment of this disease, it is a mistake on the right side, the side of caution in the use of remedies which prove injurious. In speaking of the giddiness which is so often associated with chronic disease of the middle ear, especially after inflation of the tympanum, Dr. Burnett lends his support to a theory which seems to us a little far-fetched, to say the least, viz: that the vertigo is caused by pressure on the cerebo-spinal fluid, through a small communication which has been shown to exist between the latter and the fluid contents of the internal ear, the round and oval windows being unduly compressed by forcing air into a diseased and comparatively unyielding tympanic cavity.

There are some few expressions which might as well be given in plain English instead of resorting to other languages in making such statements. For instance, the word recidive instead of relapse, has a very unenglish sound and might readily puzzle a student unfamiliar with the German medical literature. The book, however, is a very valuable one, and will doubtless soon prove to be its own best recommendation.

The Physician's Visiting List for 1878—being the twenty-seventh year of its publication: For 25 patients weekly: Tucks, pocket and pencil. Philadelphia: Lindsay & Blakiston.

This useful little book which has been the companion of the Physician in his daily rounds for twenty-six years, has lost none of its freshness, nor general appreciation. It is the most convenient visiting list yet published, and although many others have from time to time seen the light, yet is the Visiting List of Lindsay & Blakiston generally preferred and most extensively used. Our readers are familiar with its appearance and usefulness, and we doubt not many have already provided themselves with a copy for the ensuing year. The one before us is intended for twenty-five patients only, but on enquiry at the book-stores our subscribers will be able to procure editions for fifty or one hundred patients weekly. The interleaved edition is, to our mind, the most useful, as short notes or memoranda of cases under observation can be taken at the time, which is to the busy practitioner a desideratum.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

On the influence of Ovarian Compression in recent Hysterical Contractions.

In the twentieth number of the *Progres Médical*, we cited a curious instance of the influence exercised by ovarian compression in recent hysterical contractions. We have observed two additional cases of the same nature, the particulars of which we shall briefly relate.

The first case is that of a young girl of this city, aged about 25, who, during a seizure became deaf and suffered from contractions of the muscles of the right side of the body and of those of the lower jaw. These manifestations occurred with great frequency in her case, and when she was left to herself they lasted several days. During their continuance her friends used to hold communication with her by writing on her forehead, either with the finger or with a pencil. Everything written in this way she could perfectly comprehend. The hysterical symptoms which remained permanent were, amaurosis of the right eye, hemianæsthesia and ovarian hyperæsthesia of the same side. On three occasions in a space of less than two years, we were enabled to put a stop to the contractions of the muscles of the jaws, those of the limbs, and last of all the deafness.

The second case occurred in the practice of M. Charcot at "la Salpétière." A girl of seventeen years of age subject to frequent hystero-epileptic seizure, had, on the 4th of last June, violent attacks of this kind lasting for three hours, and followed by rigidity of the maxillary and lingual muscles. Every attempt at separating the jaws failed. With the experience of our former case, before our eyes, we practiced compression of the ovary on the right side, for we knew that in this case the hyperæsthesia and hemianæsthesia occupied the right side of the body. The compression was rendered more difficult than in previous

cases, by reason of the rigid contraction of the abdominal muscles. As soon as we placed our hands in the depth of the pelvis in the region of the ovary, or in other words, as soon as we felt the iliac artery pulsating, the muscles of the lower jaw became relaxed and it was drawn to the right side, giving the patient a very strange appearance. Soon it resumed its ordinary position but remained still somewhat open. As one looked down the widely open mouth, one could see in the back of the buccal cavity the tongue bent backwards and doubled on itself, the tip seemed glued to the uvula, and, in fact, one would almost imagine that she was on the point of swallowing her tongue. On continuation of the pressure the tongue suddenly lengthened itself like a piece of elastic, and underwent rapid movements of alternate lengthening and shortening. These phenomena soon ceased, however, and affairs began to take their usual course, the patient recovering with but slight impediment of speech. The girl subsequently suffered from similar attacks in which the same occurrences were noted, but they disappeared under this plan of treatment.

In these two cases, as in former ones, success crowned the undertaking. Experience alone, will decide whether this will always be the case. We must bear in mind that we deal merely with recent hysterical seizures, and that in permanent contractions of several weeks or even days standing ovarian compression has no effect whatever.—*Le Progres Médical*, 23rd June, 1877.

On the Treatment of Paralysis of the Facial Nerve.—By Dr. J. Muscarel.

The author of this article relates how unsuccessful he has been in the treatment of that form of facial paralysis depending on cold; how he has tried leeches, cupping, blisters behind the ears, revulsives, sudorifics, and various electrical contrivances. For the last sixteen or seventeen years Dr. Muscarel has employed the following plan:—On the first day he introduces a platinum needle to the depth of one centimetre, or one centi-

metre and a half, in the direction of the stylo-mastoid foramen, towards the exit of the facial nerve from the cranium. A second platinum needle is placed horizontally in front of the orbit of the paralysed side, in the upper muscular fibres of the orbicularis palpebrarum. A battery of feeble strength is placed in connection with these needles, and an intermittent current is made to pass through them for eighteen or twenty minutes. It is hardly necessary to say that excessively violent contractions, almost convulsive, occur in the fibres of the orbicularis palpebrarum. On the second day the needle is placed in the lower part of the muscle. On the third, fourth, fifth and sixth day the facial needle is placed in the facial muscles one by one, the other needle being always kept in the region of the styo-mastoid foramen. In more than a dozen cases the author has met with success in seven or eight sittings. The following cases are the most striking:

CASE I.—A servant maid, æt. twenty-eight, in perfect health, while washing clothes at a river bank, caught cold. She was menstruating at the time. Soon after she experienced difficulty of articulation, immobility of the left cheek, inability to close the left eyelid. That evening sinapisms were applied and sudorifics given. On the next day, there being no improvement whatever, the treatment above described was used.

On the first day the facial needle was put into the orbicularis; the second day into the middle, and on the third day into the upper, middle and lower parts of the face. Complete recovery ensued.

CASE II.—A cavalry officer, aged sixty-five, gouty and rheumatic, fell asleep in a railway carriage with his face exposed to a cold draught. Paralysis of the facial nerve was the result. Two days afterwards this treatment was carried out. The condition was entirely done away with at the seventh sitting.

CASE III.—A cutler, æt. twenty-nine, after a hard day's work, with exposure, found himself the next day with his face drawn to one side. Electricity was applied in the usual way. He was very susceptible to the influence of the agent, so that a very slight current was used. Only four sittings were required —Condensed from *Bulletin Générale de Thérapeutique* of the 30th July, 1877.

On the treatment of Urinary Fistulæ, by Digital Compression.—At the meeting of the Surgical Society of Paris, held on the 8th of August last, M. Delens made mention of a communication made at a former meeting of the Society by M. Maréchal, Surgeon of the Navy, on the utility of digital compression in urinary fistulæ.

This plan has previously been resorted to, but not with the same care that M. Maréchal has bestowed on it. The author recommends that the patient should hold himself well bent forwards, and hold closed with his fingers the openings of the fistulæ during the emission of urine. Compression should be regulated according to the effect produced. There is danger of extravasation should the pressure be too great and the urethra not pervious. The patient, whom M. Marechal brought before the Society, was cured eight years ago, but still as a matter of habit he never micturates without making compression. Undeniable success attended this treatment, in two cases related by the author.—*Bulletin Général de Thérapeutique*, 30 Aug., 1877.

Hydrastis Canadensis in Uterine Hæmorrhage.—Dr. Gordon of Hannibal, Mo., states that he has, for the last ten years, made extensive use of the tincture of hydrastis in cases of uterine hæmorrhage, with such satisfactory results, that he now seldom resorts to any other remedy. When the hemorrhage is severe, he gives twenty to thirty drops of the tincture at short intervals, until the actual bleeding is controlled. The remedy is then continued in doses of from two to five drops at longer intervals. When there is much prostration from loss of blood, he combines the tincture of cinchona flava with the hydrastis.

In menorrhagia, two to five drops of the tincture of hydrastis, every two or three hours or oftener, usually gives prompt relief. Larger doses may be used if necessary. After the flow is reduced to its normal quantity, the minimum dose is continued twice a day until the next menstrual period, when, if necessary, the larger doses are resumed. In dysmenorrhœa

dependent on chronic endometritis, from seven to ten drops of the tincture, with an equal quantity of a solution of bromine (gtt. i–Oj.), three times a day, have given very satisfactory results.—*Chic. Med. Jour. & Exam.*, August, 1877.—*Medical Record.*

The Relation of Erysipelas to Puerperal Fever.—Dr. Lühe, of Plön, relates a series of cases of puerperal fever, originating from erysipelas, which are of significance as regards the mode of conveyance of the poison and the efficacy of disinfectants. The place has been free from any contagious puerperal disease for some years. A lady then suffered at the time of her delivery from slight erysipelas of the face. Three days later one of her attendants had a severe, but simple, attack of the same complaint, accompanied by much œdema, and the formation of large blisters. On the fifth day after her delivery the lady herself was attacked by symptoms of puerperal peritonitis which proved rapidly fatal. Shortly afterwards two other puerperal women attended by the same midwife, were attacked by a similarly rapid and fatal form of peritonitis. The midwife, an intelligent person, was instructed to make a thorough disinfection of her person, clothing and instruments, and although she did not give up practice, no further cases of puerperal fever occurred.—*Archiv. für Gynäkologie*, B. xi. H. 1.—*Obstetric Journal*, Sept. 1877.

Erysipelas of the Pharynx.—Dr. F. Hesse, (*Deutsch Med. Wochschr.*) reports three cases of erysipelas of the mucous membrane of the soft palate and pharynx. He also adds others from other sources.

There appears to have been no doubt that these were true cases, as in each case the erysipelas came by spreading from a similar affection of the true skin. The interesting point is that in all three cases there was a diphtheritic membrane developed on the tonsils, which has it analogue where in erysipelas of the skin the inflammation is so intense that the part dies. The disease begins with chilliness, and runs its course attended by high fever, difficulty of swallowing, and especially by dryness of the nose and throat.

CANADA

Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1877.

OUR EXCHANGES.

We have had a large and valuable exchange list since we first began our publication in 1864; and while we think it as well to announce this fact, and to notice the regularity with which exchanges have been received, we desire to call attention to some anomalies which we are unable to understand. For instance, *The Dublin Journal of Medical Sciences*, was received with regularity up to the year 1873, when, without apparent cause, it stopped. We wrote to one of the editors but no reply did we get, nor indeed was any notice taken of our communication; we waited a considerable time, and then reluctantly removed the name of that journal from our exchange list. Quite recently, in September last, we received a copy of *The Dublin Journal of Medical Sciences* for the month of January, 1877, it came from the publishing house of Fannin & Co., Grafton Street, Dublin, and was mailed some time in August. *The Glasgow Medical Journal*, Quarterly, came to our address with tolerable regularity up to the year 1874, when it ceased to be received by us. Whether it is sent to our address or not we are unable io say, nevertheless we do not receive it. We now have to notice *The Australian Medical Journal*. We observe that it is announced that this journal is published on the 15th day of each month. On the 3rd of September last we received, via California, three numbers of *The Australian Medical Journal* for the months of January, February, and March, 1877. On reference to the post mark on each wrapper,

we notice that three numbers were mailed at Melbourne, Australia, on the 23rd July, 1877, and reached the Montreal post-office on the 3rd September following, six weeks after leaving the office of publication; and again on the 26th of October, we received the April, 1877, nnmber of *The Australian Medical Journal*, which was mailed at Melbourne on September 13th, last. We are desirous of knowing the difficulty in the case of our valued contemporary. Are we to infer that the journals were published on the day or shortly before they were mailed to our address; does the dalay originate in the Melbourne postal arrangement? and are we to expect the future numbers of the *Journal* to come to hand, as in the past, six months after publication. We mail our own journal with regularity to the address of our contemporary, and should be glad to receive a like courtesy in exchange. We may furthermore call the attention to our present address, which will be found on the cover of each number. Drawer 386, post-office, Montreal. This address will preclude the chance of any of our exchanges being mislaid.

TRANSACTIONS OF CANADA MEDICAL ASSOCIATION

In our advertising columns the fact is announced that this volume will be ready for issue about the middle of November, and members of the Profession wishing to subscribe are invited to send their names to the Secretary of the Committee on Publication.

The papers read at the recent meeting, together with the President's address and proceedings will make an exceedingly interesting volume—one creditable alike to the Association and the profession in Canada. Nothing, we feel assured, will do more towards placing the Association on a better footing, and gaining for it the hearty support of medical men throughout the country than the publication of its transactions. The financial position of the Association is such, owing to the low figure of the annual fee, that the volume is published by subscription, and we would urge upon our professional brethren to send in their names, and not to let this opportunity pass of assisting in what all must regard as a most praiseworthy undertak

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

The Annual Meeting of the Medico-Chirurgical Society of Montreal took place on the evening of Friday the 19th of October, 1877, in the Natural History Society's Rooms, the President Dr. GEO. E. FENWICK, in the chair. There were present, Drs. Henry Howard, Kennedy, Osler, Loverin, Edwards, Dugdale, McConnell, Park, Armstrong, Shepherd, Ross, Fulton, Proudfoot, John Bell, Richard MacDonnell.

The minutes of the previous meeting were not read.

The President read his annual address. He referred to the value of many of the papers read during the past year, many of which had found their way into the Medical press both of England and the United States.

The subject of the report of contagious diseases to the Health department, as well as that of renting rooms for the exclusive use of the society, was dwelt upon. He concluded by referring with deep regret to the melancholy death of Dr. Cline, whose life, sacrificed in the discharge of his duty, was a loss the society could ill sustain.

It was proposed by Dr. Trenholme, seconded by Dr. Henry Howard, and unanimously resolved :

"That this Society desires to express its profound sorrow at the sudden death of Dr. Cline, the late Secretary of this Association, and to make known its high appreciation of the integrity, ability, and geniality which had won for him the esteem and respect of every member. And, while deploring his sudden removal from our midst, as he was about to enter upon a most promising career of usefulness, it desires to convey to his family its unfeigned sympathy in their irreparable loss and affliction. Also, that a copy of this resolution be forwarded to the family of the late Dr. Cline."

Dr. Howard in seconding the resolution, stated how much, though a comparative stranger to Dr. Cline, he had been struck with the ability and assiduity he had displayed in the performance of his duty as Secretary of this Society.

The Treasurer's report was then submitted to the meeting, and Drs. Ross and Dugdale appointed as Auditors. It was adopted.

A ballot for the election of officers for the ensuing year took place, with the following result :—President, Dr. F. W. Campbell ; First Vice-President, Dr. H. Howard ; Second Vice-President, Dr. Ross ; Councillors—Drs. Fuller, Roddick, and John Bell ; Secretary, Dr. Richard MacDonnell ; Treasurer, Dr. Proudfoot (re-elected).

The following new members were proposed : Dr. Blackader—Proposed.

by Dr. Reddy, seconded by Dr. Richard MacDonnell. Dr. C. A. Wood—Proposed by Dr. F. W. Campbell, seconded by Dr. Kennedy. Dr. Oakley—Proposed by Dr. Osler, seconded by Dr. Roddick.

The chair was then, on motion of Dr. Ross, taken by the newly-elected President.

It was then moved by Dr. Ross, seconded by Dr. TRENHOLME: That a vote of thanks be tendered the President and Officrs of the past year.

Dr. H. HOWARD read a paper entitled "The Medical Jurisprudence of Insanity."

A brief discussion took place on the paper, in which Drs. Fuller Trenholme, Fenwick and Proudfoot took part.

Dr. HOWARD, in answer to the question whether a pauper patient was obliged first to be sent to the common jail before the asylum, replied that it was merely necessary for the medical man in attendance to forward properly framed certificate to the Provincial Secretary, and that on his authority the patient could be sent to the Asylum direct. He stated that the delay, complained of by some members of the Society, is due to the fact that, before the Longue Pointe Asylum was built, there were not enough beds in the St. Johns Asylum, and therefore the applications had to remain on the table until vacancies occurred.

It was then announced that Dr. Roddick would read a paper at the next meeting on "Antiseptic Surgery."

An adjournment was then moved.

Personal.

DR. BURLAND has been appointed House Surgeon, Montreal General Hospital, since Dr. CLINE's decease.

DR. JAMES BELL, Apothecary Montreal General Hospital, has been appointed Assistant House Surgeon.

W. D. OAKLEY, M.D., (Prizeman of class, 1877,) of Belleville, Ont., has been appointed apothecary to the Montreal General Hospital, vice Dr. JAMES BELL, promoted.

DR. BLACKADER ('71.) and Dr. C. A. WOOD, (Bishop's '77) have begun practice in the city.

CANADA

MEDICAL & SURGICAL JOURNAL

DECEMBER, 1877.

Original Communications.

ANTISEPTIC DRESSING IN SURGERY.

BY T. G. RODDICK, M.D.,

Professor of Clinical Surgery, McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

MR. PRESIDENT AND GENTLEMEN, — My object the other evening in volunteering to read this paper was not so much to parade any little success I may have had in my brief experience of Mr. Lister's most admirable system for the dressing of wounds, as it was to give me an opportunity of demonstrating the method to those members of our Society who may not have seen it put into practice. I may say that I have already had my failures, but fortunately I have always been able to trace their origin, so that to my mind, and as far as my experience goes, the method is yet faultless. When it is taken into consideration that I had for some time to work with assistants totally unacquainted with the minutiæ of the method, and unable—as in the case of nurses—to appreciate the scientific basis on which the system is founded, the wonder is that my success has been so marked. I am happy to say, however, that I have now succeeded in impressing favourably a number of our colleagues, whose opinion I value, and in imparting not a little enthusiasm on behalf of the method to my assistants, markedly, my House Surgeon, and others with whom I am brought in daily contact.

CASE I.—*Compound Fracture of the Bones of the Tarsus, involving the Ankle-joint.—Amputation.*

F. C., æt. 68, labourer, was sent by Dr. Trenholme to the Montreal General Hospital, on the afternoon of September 10th, 1877, suffering from certain injuries caused by the falling on him of a load of earth. The old man had an extremely feeble pulse, extremities cold, face blanched, and he appeared to be in a very drowsy, semi-conscious condition, although the pupils were normal and responded well to light. I saw him within an hour of the accident, and on examination found fracture of both malleoli of the left leg, and comminution of the inner border of the astragalus and scaphoid bones, with a large wound on the inside of the foot communicating with the fractured parts and with the ankle-joint. Besides, there was a great deal of bruising of the whole dorsum of the foot, and a large effusion of blood under the integument of this part. He had also two scalp wounds—one on the frontal and the other over the occipital region—caused probably by his falling against a stone. I thought that some slight depression of the bone existed in the frontal wound, but of this I could not satisfy myself positively.

Notwithstanding the adverse circumstances in connection with the age, debilitated condition of the patient and the serious nature of the injury, I decided on making an attempt to save the foot by the "Antiseptic Method." Accordingly, with the able assistance of our late lamented House Surgeon, Dr. Cline, I proceeded as follows:—The steam spray producer being directed over the part, I first injected by means of a catheter a one-to-five spirit solution of carbolic acid into every crevice of the wound and between the broken bones, as a large quantity of gravel and filth had been ground into the part by the accident, and placed there by his fellow-labourers with the view of arresting hæmorrhage. I then washed the entire foot thoroughly with a one-to-twenty carbolic solution, being especially careful to cleanse the clefts between the toes, which, by-the-way, were much bruised and lacerated. A piece of the largest size (No. 1), drainage tube, employed by Mr. Lister, was now carried to the bottom of the wound, having been first soaked in the one-to-

twenty solution and armed with wires at its mouth to keep it more steadily in position. The angles of the wound were brought together with cat-gut sutures, oil-silk protective, dipped in one to forty, of size sufficient to cover the wound was applied, and over this a double layer of antiseptic gauze soaked in the one to forty carbolic solution. The lacerated wounds across the dorsal surfaces of the toes, were also covered with the protective and wet gauze, and then the entire foot and lower leg were enveloped in a dressing consisting of eight layers of gauze with a piece of macintosh cloth, on "hat lining" interposed between the seventh and eighth layer. The dressing was held in position by a gauze bandage, and the limb placed in a box splint. Brandy and milk were ordered to be given at stated intervals. A "draw sheet" was placed beneath the limb, as it lay in the box, for the purpose of indicating any discharge.

Sept. 11*th.*—Temperature at 9 a.m., 101⅓°; pulse 68. The sheet was considerably stained with bloody serum showing the necessity for changing the dressing. The wound looked well although there were several spots about the foot and at the base of the toes which had a sloughy appearance. The dressings were much stained with bloody serum, but there was no odour or other evidence of putrefaction to be detected. In the morning his temperature was 100½°; pulse 72, and rather irregular—less drowsy than in the morning—answers questions, but lapses again into sleep,—pupils normal. Takes nourishment well.

12*th.*—There being slight staining of the draw-sheet the dressing was again removed—the lower border of the wound and the integument at the base of the toes have a gangrenous appearance, but there is no pus and no odour. The old man is delirious at times and has to be restrained. Pulse 70; temperature 100.

18*th.*—The dressing has been changed every day with one exception, in compliance with the rule that when the draw-sheet is stained the dressing must be removed. The discharge throughout has been of a serous nature, and at no time has the slightest odour of putrefaction been detected, notwithstanding the fact that a large portion of the dorsum of the foot has

become gangrenous, leaving bare the extensor tendons of the toes. Any dead tissue has been scrupulously removed with the scissors, and the wet antiseptic gauze pressed deeply into the cavities remaining, so as to keep them thoroughly aseptic. The original wound, communicating immediately with the joint, has an exceedingly healthy appearance and is granulating rapidly. For the past two days I have dipped the protective in salicylic cream, (made by mixing salicylic acid in one to forty carbolic solution until a creamy consistence is attained), as I feared the carbolic solution was too irritating for the granulations. The patient's general condition is, however, most unpromising; his delirium persists; his pulse is feeble, irregular, and intermittent; temperature 99½; he passes everything under him, seldom asking even for the urinal; urine normal; tongue heavily furred.

On the 24th I found a large pocket of pus on the outer side of the joint, which I opened antiseptically, introducing a drainage tube. The pus was laudable in appearance, odourless, and contained no bacteria. The same antiseptic precautions in dressing were adopted as before. The patient's mental condition has slightly improved.

27*th*.—To-day I found that the extensor tendons of the three middle toes had given way, causing partial dislocation at the metatarso-phalangeal joints. The integument over the outer side of the foot had also a most unpromising appearance. In spite of the extensive mortification, however, the parts—remarkable to say—remained perfectly aseptic. I now came to the conclusion that any further efforts to save a useful foot would be utterly futile, so I decided on discontinuing the more elaborate antiseptic dressings and waiting until the patient's condition would warrant amputation. My chief reason, however, for adopting this retrograde course was that I was compelled to leave town for a couple of days, and Dr. Cline, who alone of the hospital residents was practised in the antiseptic mode of dressing, lay prostrate with the disease which a very few days after terminated his life. Hence, rather than that the method should suffer from neglect, I preferred discontinuing it altogether. In

the meantime I kept the parts sweet by the application thrice daily of equal parts of a forty grain solution of the chloride of zinc and the 1 to 40 carbolic lotion.

Oct. 4th.—The patient's condition is still more unsatisfactory, although his temperature for several days has been bordering on the normal. He has a very feeble irregular pulse, tongue dry and furred, and is at times delirious. It was however thought advisable to remove the foot, so I performed the operation by making a long anterior and short posterior flap, dividing the bones about an inch above the articular surfaces. The foot was thoroughly enveloped in a towel steeped in the one to twenty solution, so as to prevent the possibility of any septic elements coming in contact with the fresh wound. The usual antiseptic precautions were adopted throughout. The vessels were all ligatured with cat-gut, and the edges of the wound adjusted with the same material. Drainage tubes were inserted at either angle of the stump. A superficial ulcer situated over the shin bone, about midway between the ankle and the knee, was thoroughly cleansed with the forty grain solution of chloride of zinc, and enveloped in carbolized cotton wool, which latter is prepared by soaking in a mixture of one part of carbolic acid to one hundred of ether, and allowing it to dry.

I take the following record of the case from my clinical clerk, Mr. Hutchinson:

5th.—The stump was dressed to-day antiseptically, and only a small quantity of sero-sanguineous fluid found to be discharged. The patient's temperature is found to be nearly normal as may be seen by reference to the chart. Pulse weak and compressible. Appetite poor.

6th.—Dressed again to-day,—only a small amount of serum on the draw-sheet and dressing. Condition much as yesterday. The wound is healing in all parts.

7th.—The draw-sheet being slightly stained the dressing was removed. No odour. No pus. The patient's general condition is decidedly improving. Tongue cleaning rapidly.

10th.—The stump has not been disturbed for the past three

days. The edges of the flaps have united so closely that the line can barely be discovered; drainage tubes removed. The sutures were simply wiped away to-day with a sponge. The man's general, and especially his mental condition, has wonderfully improved in the past few days.

13*th*.—All dressing removed, and the patient is to sit up in the invalid chair this afternoon.

CASE II.—*Railway Accident demanding amputation above the knee-joint.*

On the 7th October last I was requested by Drs. Rodger and Fuller, of Point St. Charles, to see a case of Railway accident in which, in their opinion, it would be necessary to perform amputation. I repaired to the place fully equipped with the antiseptic appliances, as it was the express desire of these gentle men that the Lister method should have a fair trial, this being a test case.

The history of the case is briefly as follows:

M. B., aged 15 years, a strong and healthy lad, was returning from St. Lamberts on the train, and instead of proceeding to Bonaventure station he attempted to leap from the cars as they passed through Point St. Charles, where he resided. It appears that instead of throwing himself free from the car he held on and was dragged for some distance, his left leg being drawn beneath the wheels. All the integument was torn off to within a few inches of the knee, and the foot hung simply by the tendons. The bones of the leg were fearfully comminuted, and the muscles separated and torn in all directions. There was therefore no question regarding the propriety of amputating at or above the knee joint. The boy's condition was not good. Pulse 130, and weak. Pupils dilated. Great restlessness.

At the request then of Dr. Rodger, whose case it was, I proceeded to perform the operation antiseptically. I first enveloped the part to be amputated in a towel thoroughly soaked in the one to twenty solution, and washed the remaining portion of the limb with the same. The instruments and sponges were made antiseptic by being placed in the one to twenty solution, while

my own hands and those of my assistants were thoroughly cleansed in the one to forty solution. Dr. Fuller administered the anæsthetic, Dr. Rodger took charge of the spray producer, while Dr. Bell looked after the instruments and rendered general assistance. I performed Carden's operation, through the condyles of the femur, and found that I could get barely enough healthy integument to cover the end of the bone, the bruising had extended so near the joint. I adopted the modification practised by some of the Edinburgh surgeons, namely, instead of making the posterior flap by transfixion, as Carden himself recommends, I first formed one of skin alone and then divided the muscles down to the bone. Thus the rather scanty anterior was compensated for by the longer posterior flap. There was sufficient integument to cover the bone without tension, and the line of junction lay well behind, The vessels, some three or four, were all tied with cat-gut, a drainage tube was inserted at either extremity of the stump, protective, and a double fold of gauze, both dipped in one to forty, were adapted to the wound, and the whole enveloped in the gauze dressing and bandage. The limb was placed on a pillow, to which a draw-sheet was adapted, and small quantities of brandy and milk ordered to be given to the patient.

The operation was performed about two o'clock in the morning of the 7th October, and I saw him in company with Drs. Rodger and Fuller on the afternoon of that day. He had been somewhat restless for three or four hours after the operation, but at the time of our visit complained only of a feeling of tightness about the stump. As the sheet was stained, we removed the dressing, but found no evidence of tension, the drainage tubes having done their work well,—stump looking exceedingly well, with the exception of a dark line along the edge of the anterior flap for the distance of about an inch, showing a lack of vitality at that point, at which I was not surprised, considering how closely I ventured to the bruised parts.

Oct. 8th.—Temperature 99⅘; pulse 124. The nurse reports that he has had a good night, and he expresses himself free from pain, and altogether very comfortable. We again dressed the

stump, and found on the protective and gauze simply a serous discharge, slightly tinged with blood. No pus.

On the two subsequent days the dressing was changed, and the condition of the stump found to be most promising. On the 11th the temperature ran up a degree as will be seen on reference to the chart, but as soon as his bowels had been moved by an enema it fell to normal. The dark suspicious-looking line which was noticed along the edge of the anterior flap at the first dressing has gradually disappeared.

The dressing was left undisturbed for the two following days, (12th and 13th), and when removed just one week after the operation, the stump was found to be entirely healed, excepting at the angles where the drainage tubes had been retained. The latter were removed, and the knots of the cat-gut sutures picked off with the forceps, or simply brushed away with the sponge. The dressing was re-applied as before, with this difference that salicylic cream was substituted for the one to forty solution on the protective and gauze, in order to prevent too great irritation of the tender cicatrix.

Dr. Rodger informs me that he removed the antiseptic dressing altogether on the 17th, and applied some red lotion to the angles of the stump, so as to hasten the healing of the two little spots, which had been prevented from closing by the drainage tubes. The boy has since been sitting up every day, and appears in perfect health.

These cases are most satisfactory in their results, and fully bear out the expectations in favor of Mr. Lister's antiseptic method of treating wounds. Nothing could be more striking than the rapidity with which the wounds closed in both instances, and without suppuration, a result which could not be looked for under any other method of treatment. But even if it be admitted that there is nothing specially advantageous in the antiseptic treatment of wounds. There is this to be said for it, that it makes the surgeon more careful in the after-treatment of wounds, and he will attend to the dressing himself or trust it alone to a skilled and reliable assistant.

PATHOLOGICAL REPORT,

GENERAL HOSPITAL, MONTREAL,

For the year ending May, 1st, 1877.

By William Osler, M.D.

(*Continued.*)

Liver.—*Hypertrophic Cirrhosis.*

Case I.—*Cirrhosis of Liver, with enlargement.—Jaundice. No Ascites. — Delirium Tremens (?). — Erysipelas of the head.*

J. H., æt. 34, of intemperate habits, admitted to the Hospital April 30th, 1876, with jaundice, diarrhœa, and delirium. He had been seen by Dr. Roddick a few days before, when he complained of pain in the region of the liver, and great enlargement of the organ was then detected. Nothing definite could be obtained as to the duration of the jaundice, for he was incoherent, and had no friends. Shortly after admission he was attacked with erysipelas of the face and scalp, to which he succumbed rapidly on the 4th of May.

At the autopsy the body was found to be well nourished and of fair muscular development. Skin moderately jaundiced. Several purpuric spots noticed.

Brain.—Healthy.

Abdomen.—No fluid in peritoneal cavity. Liver projects considerably below the margin of the ribs.

Thorax.—No fluid in pleural cavities. A few extravasations on the visceral leaves.

Heart.—Slight thickening of the mitral segments and some atheroma at the bases of the aortic semi-lunar. Otherwise healthy.

Lungs.—Crepitant, except lower lobe of left lung, which is collapsed.

Spleen.—Weight 19 oz., (538.46 grammes). Capsule a little thickened and puckered. Pulp soft.

Kidneys.—Right, 9½ oz.; left, 8 oz., of a greyish-yellow hue. Collecting tubules of the pyramids full of urates and bile pigment.

Stomach.—Contains ʒvi of semi-coagulated blood. Mucous membrane dark-coloured, swollen in places and congested.

Intestines, dark, and contain a small quantity of altered blood. Large veins not particularly full, but the mucous membrane is reddened.

Liver weighs 6lbs. 11½ oz., (3053 grms.), and is uniformly enlarged. No adhesions, or fibroid thickenings in capsule. Surface of organ of a dark, olive-green colour, and studded with small granulations, half the size of a pea and larger. These little projections have a greenish-yellow appearance, while the intervening tissue is white. On the under surface of the left lobe the largest nodules are seen. The organ is very firm, cuts with resistance, the surface of the section presenting a deep, greenish-yellow colour, and the lobules separated by strands of white connective tissue. The portal vein is large, appearing even dilated.

The gall-bladder is elongated, filled with inspissated bile which towards the orifice of the cystic duct had collected into three consistent, but easily broken balls, which completely close the orifice. The mucous membrane of the ductus communis choledochus is somewhat swollen, but the bile ducts do not appear to be dilated.

Microscopic Appearances. — Sections under a low power present islets of liver substance surrounded by a connective tissue rich in nuclei, and which, in most of the specimens examined, almost equalled in amount the liver substance. The limit between these two elements is rarely well defined, but there is a gradual blending of the one with the other. In certain lobules the invasion is uniform and intercellular, groups of two or three cells being separated by a nuclear growth; but in most the invasion is peripheral, and lobules in all stages of destruction may be seen with the liver cells in the central parts still in close contact with each other.

The *connective tissue* differs in no respect from that seen in

ordinary cirrhosis, save that the nuclei are perhaps more abundant in proportion to the fibroid tissue. Only in the central parts of wide areas is there an indistinctly fibrillated appearance, and here the nuclei are scattered, while in the neighbourhood of the lobules themselves the tissue is more embryonic in character, and the nuclei predominate, in some spots being crowded together with little or no intervening material. The method of invasion can be traced in all its stages, the new growth creeping in, as it were, from the periphery between the cells, sometimes separating them in rows, but frequently surrounding individual cells or groups of two or three. This appearance will of course vary with the direction of the section; if at right angles to the central vein of the lobules the appearance is of fibrous bands passing in from the periphery, while if parallel to the central vein, cells or groups of them are separated by an intervening tissue rich in small nuclei. Such is the condition of the external zone of the most of the lobules. There is no definite limit between the two constituents, as is so commonly seen in the atrophic form of the disease, where strands of fibrous tissue encircle and constrict lobules, and the boundary between the two is often, as in specimens before me, clearly defined This was rarely seen in the case under consideration.

The *liver cells* do not present any remarkable alterations. In lobules not much involved in the sclerosis, they appear quite natural, but in the affected areas they are stuffed with yellow pigment grains or oil drops, frequently a combination of the two. The fatty infiltration is not extensive and is very unequally distributed, being marked in some lobules and absent in others. In the periphery of the acini cells in all stages of atrophy may be seen, some appearing flattened, but the majority look simply diminished in size. Where the central part of a lobule, containing 40 to 50 cells, alone remains, the whole process can be distinctly traced. In the outermost part little groups of yellow granules are seen in the fibroid tissue, in the next zone small cells filled with these granules occur, separated by numerous nuclei, while on the central part are 10–15 cells, the outlines of which are still distinct, the nuclei well marked, and the bile

pigment not so excessive in amount. In various sections numerous fine specimens of bilirubin crystals occurred, scattered among the cells.

Here and there in the extra-lobular tissue *biliary canaliculi* are seen, made up of rows of cuboidal cells, enclosing a very narrow tube. They do not appear to be specially numerous, certainly not more so than in sections of a well-marked specimen of atrophic cirrhosis obtained a short time since from the body an old toper.

The recognition of a distinct variety of cirrhosis of the liver accompanied with enlargement, has only been made within the past few years, owing in a great part to the labours of certain French Pathologists. When the specimen came under observation it appeared to be such an anomaly that the standard authors were ransacked for information, but in vain; the only references to an increase in volume of the organ in cirrhosis related to the initial stage of the disease and as a consequence of fatty infiltration. Happily, just at the time, a number of the *Revue des Sciences Médicales* came to hand, with a condensation of M Hanot's Thesis on Hypertrophic Cirrhosis; in which he seeks to establish this as a special variety of the disease, characterized clinically by enlargement of the organ, prolonged jaundice, and the absence of ascites, and pathologically by the fact that the affection originates about the bile ducts and leads to an increase, not a diminution, in the size of the organ. Cornil and Ranvier* describe the histological condition, and support this view of the origin of the disease. In a recent number of the *British and Foreign Medico-Chirurgical Review*† there is an excellent *resumé* of the papers on the subject, and the writer agrees in the main with Hanot.

The chief histological differences between this and the common form of cirrhosis appear to be that the new growth surrounds single lobules rather than groups of them, and tends more to invade the acini, and that a greater number of the so-called

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* "Manuel d Histologie Pathologique," p. 922.

† July, 1877.

biliary canaliculi are found in the extra-lobular connective tissue. As will be seen in the above description, the first of these characters is well marked in our specimen, but the second is not so decided.

The clinical history of the disease in this instance, so far as known, corresponds with that of the cases recorded by Hanot. The liver exceeds in weight any of the specimens mentioned in the authorities referred to.

Syphiloma.

CASE V.—*Syphilitic ulceration of left frontal bone. Large node on left tibia. Gummata in liver.*

T. M., æt. 24, admitted May 4th, with syphilitic disease of frontal bones, and died of erysipelas of the head on the 16th.

Liver weighs nearly 5lbs., elongated in the transverse direction. Left lobe much flattened, measuring 8″ from anterior to posterior border, the right lobe at the gall-bladder measuring only 6″. Capsule much thickened, especially about the longitudinal ligament. Five puckered cicatrices are seen in surface of the right lobe, and some small extravasations exist beneath the capsule. On section of the organ from right to left three gummata are seen in the substance, each about the size of a large walnut, two corresponding to cicatrices in right lobe. Each presents a firm, white, central area, which cuts with resistence, and a capsule of fibrous tissue, which towards the liver substance is not well defined, but blends insensibly with it, and at this part is more translucent. Four others presenting similar characters are seen; two, the smallest, in the left lobe. Microscopically the central portions show an indistinctly fibrous appearance, at the periphery the fibres are more marked, while the zone in the immediate neighborhood of the liver substance shows a small-celled growth involving the lobules.

The other organs presented nothing abnormal.

Cancer.

CASE LV.—*Primary Cancer of the Liver. Ascites. Jaundice—Secondary mass in tail of Pancreas, small secondary nodules in Kidneys.*

A. B., æt, 65, in hospital for several months. Body much emaciated. Abdomen distended. Skin moderately jaundiced.

From the peritoneal cavity 250 oz. of bile-stained serum were removed. Intestines slate coloured, and here and there small flakes of lymph are seen upon them. The descending colon passes down to about an inch and a half below the crest of the ilium, then turns and passes up upon the kidney nearly to the spleen, at which point it is firmly united to the omental tissue; turning again it passes obliquely to the lumbar vertebræ, descending in front of them and the sacrum to the anus. In the whole of its course it is closely attached. The ileum two inches from the valve is united by a firm band to the psoas muscle.

Liver.—Weight 4½ lbs.; closely adherent to the diaphragm behind and at the right border, and also below to the tissue in the neighbourhood of the right kidney. Though somewhat smaller than natural the shape of the organ is maintained. The upper surface is exceedingly irregular, owing to the presence of numerous cancerous masses, a very large one much depressed in the centre being seen a little to the right of the longitudinal fissure, occupying an area fully three inches in diameter. Above the gall bladder there is another puckered spot, and numerous nodules exist in the liver substance about it. The whole of the surface to the right of the longitudinal fissure is involved in the disease, and the capsule here is thickened, opaque and fibroid. The posterior border is not so much affected, only here and there presenting isolated nodules. Where the longitudinal ligament is attached to the diaphragm there is an extensive, somewhat flattened, cancerous mass. The under surface of the right lobe is comparatively free, nodules being seen only at the anterior border. The lobus Spigelii presents a single deep puckering. Many elevated tuberous nodules exist in the under surface of the left lobe. All of these masses are raised above the surround

ing liver substance, and the majority of them present cup-like depressions. A longitudinal section from right to left, through both lobes, shows the greater part of the liver substance to be the seat of disease. The large white mass noticed in the right lobe extends fully two inches into the organ, and innumerable small nodules are arranged about it. Quite three-fourths of the liver substance exposed on the section is occupied by the cancerous growth. The lower and posterior parts do not contain so many nodules. The hepatic tissue is very dark, and stained with bile; the central veins of the lobules are injected, and apparently dilated; a good deal of blood escapes from the larger veins.

The gall-bladder contains a small quantity of dark bile. A cancerous girdle surrounds the middle of the organ, and the fundus is also affected.

Nothing abnormal in the *heart* and *lungs*.

Kidneys—Two small cancerous nodules the size of peas in the cortex of the left organ, and two others somewhat smaller in the right.

Spleen, small, and looks healthy.

Pancreas.—The tail is firmly united to the tissue in the hilus of the spleen, forming a firm, hard mass, about the size of a walnut, which on examination is found to be cancerous.

Stomach.—About 20 small, punched-out ulcers, with hæmorrhagic bases are seen on the mucous membrane of the fundus.

The *intestines* are dark in colour, the veins full, and the coats sodden.

The abdominal *lymphatic glands* are not enlarged.

The *left external femoral artery* contains a firm thrombus.

The general character of the growth and the absence of any considerable mass of cancer elsewhere render it more than probable that the disease in the liver was primary. The presence of one large tumour, around which numerous smaller nodules are aggregated, is almost characteristic of primary cancer, the situation of which, however, is more commonly towards the under surface of the organ, and not, as in this case, just to the right of the longitudinal ligament. Though the weight of the organ was increased its volume was decidedly diminished, an

unusual circumstance in cancer, and one apt to lead, as I believe it did in the present case, to some confusion with cirrhosis.

Secondary Cancer.—Of three cases one followed cancer of the tongue, another cancer of the vertebræ and ribs, and in the third the primary lesion was in the gall bladder. The latter, a very remarkable case, is given in detail by Dr. Bell, in *Canada Med. & Surg. Journal* for April, 1877. The pathological condition was as follows:

CASE LXXXIV.—*Cancer of neck of the gall-bladder and lymphatic glands in the portal fissure. Compression of the hepatic ducts. Secondary masses in liver. Enormous distension of gall-bladder and hæmorrhage into it.—Gall stones.*

Suppuration of Portal vein.

CASE LXXXVIII. — *Extensive abscesses in the mesentery following typhoid fever. Suppuration of the portal vein and its branches in the liver. — Empyema. — Perforation of the appendix vermiformis; Peritonitis; Miliary tubercles in lungs.—Amyloid degeneration of spleen, liver, and mucous membrane of small intestines.*

A. B., æt. 37. History of an attack of typhoid fever three months before his death, from which he had never entirely recovered, remaining febrile and very weak. Empyema supervened, and finally an attack of acute peritonitis. There was no jaundice, nor, as far as I can learn, did the symptoms point specially to any trouble in the liver.

Peritoneum, extensively inflamed and contains 80 ounces of turbid fluid. The inflammation is most intense about, and has evidently spread from, the appendix vermiformis, the cæcal end of which is obliterated, while the under surface presents an oval perforation.

Pericardium and *Heart* healthy. Left pleura contains 54 ounces of pus. Left *lung* compressed and, with the exception of the apex, airless. Numerous miliary tubercles scattered through it. Right *lung* crepitant; one or two caseous nodules at the apex; miliary granulations abundant. *Spleen* weighs 330 grms., firm, Malpighian corpuscles enlarged, translucent, and react with

iodine. *Kidneys* firm, pale, slight reaction with iodine in the right one. *Ureters and bladder* healthy. Stomach contains about a pint of greenish fluid; the mucous membrane is thin and soft. The *duodenum* is firmly adherent in its first part to the gall bladder, the tissues in the neighbourhood being closely matted together. On pressing the *common bile duct* a yellowish secretion first flows out, and is followed by pure pus. About an inch and a half from the pylorus, towards the upper surface of the first portion of the duodenum, pus is seen to exude from a round orifice, the size of a pea. On passing a probe into this it is found to communicate directly with the enlarged and suppurating portal vein, to be shortly described. Mucous membrane of jejunum and ileum reacts on the application of iodine. Nothing abnormal in the *large bowel.*

The *mesentery* is enlarged, thickened, and the whole structure fluctuates like a sac of pus. Towards the root, and at some spots near the bowel, the fluctuation is limited as if the individual glands were involved. On section of the membrane pus is found to spread uniformly between the folds, and after thoroughly washing with water it presents an appearance as if riddled by communicating cavities. In some spots the pus is limited within the capsules of lymphatic glands. On tracing the mesenteric veins from the intestinal border many are found to lead directly into these suppurating areas, others are shut off by thrombi. At the distal border, where the mesentery is cut away, there is an irregular opening, close to the superior mesenteric artery, from which pus flows and a probe in it passes in several directions. Whether or not this represents the superior mesenteric vein it difficult to say; the situation corresponds with it.

Liver, enlarged, firm to the touch, but at the same time yielding and elastic. On section the substance cuts with resistance, looks glistening, and on the application of iodine the intermediate zone of each lobule becomes a mahogany-brown colour, the central and interlobular areas remaining unaffected. On the surface of the organ, especially on the posterior and right borders are several small, irregular swellings, which on section are found to contain pus. The abscesses are tolerably numer-

ous in these regions, and range in size from pin's heads to marbles. Many are in communication with each other, or are separated by narrow portions of liver substance. On closer dissection it is found that these abscesses stand in direct connection with, and indeed, are only suppurating portal veins. This being ascertained a thorough inspection of this vessel was begun. Outside the liver the vein is represented by an elongated abscess with thick, irregular walls, made up anteriorly of condensed connective tissue, posteriorly to a large extent by the head of the pancreas, the lobules of which have been laid bare in the suppuration. Immediately where the vessel enters the liver its calibre is relatively diminished. The *splenic* vein ends abruptly on the wall of the suppurating vessel, being closed by a thrombus the portion behind is much dilated. Unfortunately in removing the liver, duodenum, stomach and pancreas together, the mesentery was cut off just below the latter, and no trace could be found of the superior mesenteric vein and the manner of its communication with the portal. On passing a director along the branches of the portal vein and slitting them up they are found full of pus, sometimes cream-coloured, at others tinged with bile. The branch passing out to the right lobe of the organ, at about an inch from the hilus, widens out in two large sinuses, one going to the right border, the other towards the posterior. Into these are seen opening numerous branches from which large quantities of a yellowish creamy pus can be squeezed. Near the upper surface of the right lobe is a cavity the size of a walnut, in communication with a vein, and from its upper end one or two branches are given off. The posterior border of the organ appears on section riddled with such cavities which are found in every instance to be merely dilated branches of the vein. In the anterior portion of the organ over the gall bladder there is less disease than in other parts. The extreme left border is also unaffected, and the branch going to it does not contain pus. The lining wall of all the suppurating vessels is of a peculiar yellowish-white colour, firm, and passes over abruptly into the liver substance. There is no zone of hyperæmia about the inflamed vessels, the hepatic tissue beyond the opaque white margin

looks natural. In branches in which the suppuration is not far advanced, the remains of the intima, like a soft, stringy mass, can be seen, as if the process was confined rather to the adventitia and Glisson's sheath. On almost any section of the organ peculiar whitish-yellow areas, very often of an irregular foliaceous appearance, are seen, presenting a remarkable appearance. Occasionally groups of them appear isolated, but on making a section through them they are always found to be in connection with suppurating vessels, the smaller ones being surrounded by one or two necrotic liver lobules of a glistening, opaque-white colour.

The first and second division of the vein passing to the hinder and right borders are considerably dilated, and on the lower wall the branches of the artery and duct are seen as elevated cords. The former at its commencement appears nearly double the usual size, and on the walls of all the larger suppurating veins its branches could be seen. The *common bile duct* is pervious and a probe can readily be passed into the hepatic ducts, which appear quite free from disease and contains, in places, bile. The cystic duct is also patent. At the junction of tke cystic and hepatic ducts the sub-mucous tissue is greyish-white in colour, and the same condition extends along the former to the *gall-bladder*. This organ is large, somewhat distended, and contains about 3 oz. of laudable pus, not tinged with bile. The mucous membrane is transformed into a thick, greyish white structure, which is here and there congested. At the upper and back part of the opening of the cystic duct there is an irregular wide sinus leading towards the portal fissure, and along it a probe can be passed for 1½″, terminating close to the dilated aud suppurating branches of the vein. A direct communication with the latter could not be made out, but water poured into the sinus oozed out in the vein.

All the parts about the head of the pancreas are closely adherent together, aud there are several separate lymphatic glands in a condition of suppuration.

Lying along the left side of the lower 2″ of the abdominal aorta, and extending another 2½″ at the left of the left internal iliac

and ending on the wall of the rectum, is a narrow shut sac, full of pus, the walls thick, dark in colour, and lined by a definite pyogenic membrane. There is no communication with the rectum, the walls of which at the point of attachment appear healthy, nor is there any opening at the upper end.

The *vena azygos dextra* is remarkably large and distended with blood, almost equalling in size the inf. vena cava. The left is also large.

Suppuration of the portal vein—pylephlebitis—is among the rare affections of the liver. Frerichs (1861), collected twenty-five cases, of which only three or four followed, as in this instance, suppuration in the mesentery; the others resulted from injury, ulcerative processes in intestine and stomach, abscess of spleen, &c. In the pathological Society of London two or three cases have been presented up to the present time.—

The remarkable combination of lesions met with in this case, (pathological and the absence of a proper clinical history), render it somewhat difficult to decide upon the starting point of the process,—the first link in the series. The Typhoid fever may be regarded as the primary affection to which the suppuration in the mesentery and chain of retro-peritoneal glands was secondary; the pylephlebitis, resulting probably from an extension of the inflammation in the mesenteric veins to the vena portæ and its branches. Another source of infection, however, was present, viz: the inflammation in the appendix vermiformis which formed the starting-point of the disease in three or four of the recorded cases; but I see no reason in this instance to regard the ulceration and perforation of the appendix as anything more than an accidental occurrence, arising from obliteration of the orifice—probably the result of a typhoid ulcer—and retention of secretion. The fatal issue was due to the extension of the inflammation in the neighbourhood of the appendix to the general peritoneum. It is impossible to say, not having a clinical record, whether the empyema was a sequela of the typhoid fever or of pyæmic origin, resulting from the pylephleblitis, though it is remarkable how rarely pyæmic abseess occur in this disease, being found in only 5 out of the 52 cases collected by Frerichs.

The tuberculosis of the lungs was probably secondary to the empyema. A point of interest is the way in which the collateral circulation was established, though, unfortunately, owing to the length of time spent over the other conditions, no careful dissection could be made. The right vena azygos was greatly distended, and the left was also much larger than normal. The only veins in the abdominal cavity noticed to be distended were those about the hilus of the spleen, and the vasa-brevia of the stomach.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Excisions of the Knee joint.—Case of Excision of the Knee Joint.—Recovery with useful Limb.—Under the care of J. M. DRAKE, M.D.

I am indebted to my friend Dr. Drake for the particulars in this case and permission to include them in this series.

J. G., aged 22, came under the care of Dr. Drake, Sept. 15th, 1873, suffering from painful swelling in the right knee joint. The joint had heen repeatedly injured by sprains, falls, &c., and for the past two years had been more or less swelled and painful. For the past three weeks the pain has been excessive, and he uses large quantities of morphia to alleviate it. Rest and palliative measures were resorted to till October 16th, when the patient being fully etherized, the joint was excised. The semi-lunar incision was adopted, the patella removed, together with about two inches of the lower end of the femur, and ½ an inch of the tibia. The cartilages of both surfaces were considerably eroded, and the synovial membranes much thickened. The limb was put up firmly in a straight trough splint, attached by rivets, to a pelvic belt made of wire and covered with leather, moulded carefully to the shape of the patient's body. The limb remained undisturbed for 73 days, was then dressed, and returned to the splint for 20 days. At this time, owing to a defect in the splint,

a superficial sore of some three inches in length was observed on the outer side of the thigh. The splint was removed altogether and the limb steadied by means of sand bags. He remained in bed 43 days longer, and then was allowed to sit up, union being apparently complete. He left the hospital in March, 1874, with two or three small fistulous openings in the neighbourhood of the wound, which did not close completely for four or five months. Nevertheless, he was able to get about with the aid of a crutch, and came repeatedly to my office. It is worth recording that, on the evening of the day on which the operation was performed, a considerable hæmorrhage occurred from the bowels, and this continued for three consecutive days and nights. His urine also was smoky, and contained albumen in considerable quantity. The albuminuria continued for upwards of twelve months, and was present when I last examined the urine, fifteen months after the operation. The limb is now (Jan. 1875,) perfectly strong, the wound and fistulæ completely healed, shortening to $2\frac{1}{2}$ inches. He expresses himself perfectly satisfied with the result and says he walks as well as ever he did, without a cane or support of any kind.

Case of Excision of the Knee Joint.—Rocovery with a useful limb.—Under the care of G. E. FENWICK, M.D.—Reported by J. D. CLINE, B.A., M.D.

Case I.—R. E., aged 20, was admitted into hospital in April, 1875, suffering from an attack of acute synovitis. The history is as follows: In October, 1871, he slipped while running, fell, and struck his knee a severe blow. The leg became swollen and painful; the pain, however, was not sufficient to oblige him to keep in the house, so that he continued to walk about. He experienced a sense of fatigue, and also a creaking sensation in the joint while walking. This sense of uneasiness obliged him to sit in the house after returning from school. Towards the end of the month of October he consulted Dr. Rodger, who enjoined absolute rest, put the leg on a splint, and painted the knee with tincture of iodine. The leg was also blistered several

times, which gave him relief. In February, 1872, he left Montreal and returned to his home in St. John's, P.Q., when he became the patient of Dr. Wight of that place. The same treatment of rest was followed out, and at the end of a week or two belladonna plaster, spread on leather strapping, and a bandage was applied over the knee. While under treatment an abscess formed, which was freely opened and discharged for some five or six weeks After the closure of this abscess he noticed that motion in the joint was less free, still he was able to go about with comparative comfort. In March, 1873, he again slipped while running, and twisted or sprained his knee; this accident obliged him to keep his bed for six weeks. After recovery from this injury motion was limited the same as before. Again in April, 1875, he met with a severe fall, and shortly afterwards, on the 29th of April, he was admitted into the hospital. The leg was put up on a McIntyre splint, and as he was somewhat run down, tonics were prescribed. Towards the middle of May an abscess was found to exist in the vicinity of the joint, this was freely opened and a drainage tube inserted. Subsequently pus formed at other points both above and below the joint; these were treated in the usual way, free openings being made, and the boy was given nutritous diet, and ale, and the quinine and iron mixture on which he had been placed was continued.

The patient came under the charge of Dr. Fenwick on the 1st July, 1875, who found the joint open and sinuses leading to bare bone at the extremity of the femur. The boy was in a very unsatisfactory condition; however, he proposed excision, with the alternative of amputation if the disease was too extensive, at the lower third; this was agreed to, and the operation performed on the 13th July, 1875. At the end of eight weeks union between the bones was tolerably firm. There were one or two points still discharging a small quantity of pus, in fact, the amount of the discharge was so trifling that it did not more than moisten a a piece of lint in the twenty-four hours. The rest of the wound was firmly united. As the patient was anxious to leave his bed a back splint of gutta percha was moulded to the limb, and it

was put up in a glue bandage, openings being made in the bandage opposite the points still discharging for the purpose of changing the dressings and he was allowed to get up and go on crutches. He gradually acquired confidence in the strength of his limb, and, by the middle of January, could limp about with a stick. He returned home on the 2nd February, 1876. The following October, he again presented himself for admission to tho hospital, as there existed a somewhat indolent ulcer, five inches in length, situated on the outer side of the thigh, and which had beeu treated with red wash and a bandage, but without much benefit. Simple water-dressing was at first employed, and cod-liver oil with tonics and good diet. This had the effect of improving the character of the sore, when it rapidly healed by skin-grafting. At this time the patient could walk without a stick, and stated that he felt perfectly secure on that leg. At the present time he is able to walk any reasonable distance without fatigue; the shortening is about two inches.

Excision of the Knee Joint. — Recovery with useful limb.— Under the care of DR. FENWICK. — Reported by J. D. CLINE, B.A., M.D.

Case II.—M. McG., a delicate-looking girl, æt. 12 years, was admitted into hospital on 15th July, 1875, with disease of the right knee-joint of several years' duration. The joint was fixed at right angles with the thigh; there was dislocation backwards of the bones of the leg from contraction of the hamstring muscles. There were sinuses communicating with the joint which led into its cavity, and reached bare bone. The muscles of the leg and thigh were very much wasted, soft and flabby, and the joint itself was tender, so that she could not permit examination, except while under chloroform. Excision was performed on the 10th August, 1875. In order to secure the after-growth of the bones the entire epiphysis was not removed from either the femur or tibia. The end of the femur was rounded off, making it convex, and the end of the tibia was treated the reverse of this, rendering it concave. There was

much difficulty in straightening the leg, in consequence of contraction of the muscles, so that, in order to prevent crushing of the ends of the bones, a second thin slice had to be removed from the end of the femur and the ham-string tendons had to be divided; the bones then came into position, but the tissues in the popliteal space appeared to be put on the stretch, this in all likelihood, led to after difficulty in the management of the case, probably from stretching of the popliteal nerve. There was, throughout, great tendency to the formation of sloughs from pressure, so that, after the end of the first ten days, the splint had to be removed and the parts retained in position by means of a weight keeping up extension. and sand bags placed on either side of the limb; sloughs formed over the tibia on the dorsum of the foot and over the heel. The patient complained of a sense of tingling in the leg, but no urgent pain. The patient progressed slowly, and the sloughs separated, and healthy granulation followed with closure of the sores. The wound, the result of the operation, took on healthy action, and nearly in whole closed, and, at the expiration of the fourth month, she was allowed to leave her bed and go about on crutches; bony union, however, was not complete, as owing to the difficulty of retaining the parts at rest, some motion, though limited, existed. There was still slight discharge from the wound, but the patient was improving in general health. The following June she left the hospital, and returned to her friends. At this time she walked about on crutches and was tolerably active. This patient was seen again in August, 1877, when the following condition was found: Her general health was very good; union of the bones was firm; all discharge had ceased; the leg was slightly bent, and she could sustain the weight of the body on the leg; muscular development was markedly in abeyance, apparently because the little girl was disinclined to use the limb, and she was very active on crutches. The limb was by measurement two inches shorter than its fellow.

Case of Excision of the Knee.—Recovery with useful limb in five months.—Under the care of Dr. FENWICK.—Reported by J. D. CLINE, B.A., M.D.

Case III.—J. B., æt 38, farmer, was admitted into hospital May 6th, 1877, with chronic disease of the left knee-joint. Family history good. No history of tubercular, scrofulous, or rheumatic taint. Up to commencement of present affection, seven years ago, enjoyed perfect health. At that time, after working in cold water the left knee became swelled and painful particularly at night. The swelling was evidently synovial. Was not confined to bed, and has gone about ever since that time though somewhat lame. At times after any slight injury the joint would become more painful. It was more swollen than it is now. Since last spring he has been unable to walk without crutches. He has had starting pains in the night for the last year, and the same pain was produced by any jarring of the joint. There is great thickening about the joint. Circumference of the leg over the middle of the patella is 14½ inches, of the sound knee, 13¼. The patella is fixed. There is very little motion possible of the joint. The limb cannot be straightened entirely, and scarcely flexed beyond its constant position. By flexion a grating sensation is communicated. There is no pain when the joint is at rest. The muscles of the thigh are much wasted. The patient's general condition is good. No disease can be detected in any of the organs. Urine is clear and of normal appearance, acid in reaction, sp. gr. 1.020. No albumen or sugar. Excision of the joint was performed by Dr. Fenwick on April 11th. The limb was put up in a gutter splint moulded around the buttock so as to fix the pelvis as much as possible. A drainage tube was put through the wound. The incision healed by the first intention. The stitches were removed on the 9th day. There was a moderate degree of inflammatory fever with a rapid pulse, ranging from 108 to 124 till the 15th day, when temperature became normal and the pulse 92. The temperature remained normal for three days, when after a chill it ran up to 102°. After this to the first of June there were

fluctuations from high to low temperature with occasional chills, and a good deal of sweating. During this time there was evidence of a good deal of cellular inflammation around the joint, with the formation of some collections of pus. June 9th, the splint was removed and there was found to be tolerably firm union of the bones. A moulded leather back splint was applied with a narrow piece of wood at the back to strengthen it. Patient's condition now rapidly improved. June 20th, patient got out of bed on a wheeled chair, and in a few days he began to go about on crutches. At this time his temperature would run up in the evenings to 100°, and even 102°. July 20th—The leather splint was removed. Union now is quite firm. The wound is still open at its two angles. The discharge is very slight. The shape of the leg is good. The patient was discharged, August, 1877, and went to the country being instructed to return when the wound had ceased discharging altogether. He can now bear a considerable weight on the limb, and goes about well on his crutches. He was thus four months in hospital after the operation. Since this report I have heard from the patient, and he informed me that he was progressing fairly well, was able to get about, but lacks confidence, as he is always fearful of injury resulting from extra exertion or from falling down.

Excision of the Knee Joint.—Death from Pyæmia.—Under the care of G. E. FENWICK, M.D. — Reported by Mr. D. F. SMITH.

Case IV.—F. P., æt. 17, a farmer's son, was admitted into the Montreal General Hospital on July 5th. 1877, with chronic disease of the right knee. There is a history of scrofula on the father's side of the family. Patient says he was perfectly healthy until two years ago. Two years ago a small swelling began in the right knee, which increased and diminished alternately. and was unattended by pain for about a year. He only felt a stiffness and numbness of the joint. He attributes the affection to overwork, especially mowing hay. About a year after the first appearance of these symptoms pain began to be felt, not

very severe at first, without any increase in the swelling. Up to last Christmas he could walk without much lameness. The pain and consequent lameness increased till in April he began to use crutches. Since then the knee has become fixed in a flexed position.

The measurements of the diseased joint as compared with the other are as follows:

Right Leg.	Left Leg.
Over the patella - -	15¾ in.	14¼ in.
4 in. above " - -	15¼ "	14 "
4 " below " - -	15 "	12¼ "

There is much heat and tenderness about the joint. It is red and bulging on the inner side near the border of the patella. Fluctuation here is evident. There is partial anchylosis of the right elbow. He cannot extend the forearm completely. There is no displacement of the bones; some swelling and slight tenderness between the olecranon and external condyle. This condition began a year ago. Has felt neuralgic pains at times darting through the joint and suffered from sciatica at the same time. The patient is a good deal emaciated. Appetite is good. Heart, lungs, and liver are normal. Examination of urine gives a negative result.

July 7th.—Excision performed. Much pulpy degeneration of the joint, not much pus. Spots of ulcerated cartilage on both condyles of femur. The semilunar cartilages of the tibia, were both entirely destroyed, and several diseased spots were found on both articular surfaces of the tibia. The excision produces shortening of the limb by about 1¼ inches. The limb was put up on a gutter splint cut out at the knee, and extending up the side so as to fix the pelvis.

11*th.*—Patient feels comfortable. Wound looks clear and healthy. Urine and other excretions normal. Appetite poor. Tongue heavily coated. Vomits occasionally. Bed sores appearing over the sacrum.

21*st.*—Removed stitches; wound looking well, united superficially, drainage tube still in. There are frequent spasms of the flexors of the thigh which cause great pain. General condition

seems to be improving. No night sweats. Tongue clear. Pulse 132; temperature 100¼°. Sleeps well after morphia gr. ¼ hypodermically. Appetite very good.

25*th*.—Temperature last night 104°. Ordered quin. grs. xv. Morning temperature, 98°. Passed a good night. Gets M. gr. ¼ hypodermically night and morning. Pulse 124; Pulse has been very rapid throughout. Knee dressed once a day, and lightly bandaged with a many tailed bandaged.

29*th*.—Diarrhœa for last two days. Increase stimulant, brandy 6 ounces. Ordered pill plumbi c. opio. Tongue dry. Large slough over sacrum.

30*th*. — Diarrhœa persists. Lost appetite. Tongue dry. Pulv. kino. co. and starch and opium enemata given. Patient getting very weak. Some dusky red blotches on back of left forearm and one over styloid process of right ulna. Diet of boiled milk. Patient sweats considerably; no chills.

31*st*.—A large collection of pus was discovered and opened on outside of leg below the knee. The pus was very fœtid. Introduced a large drainage tube. Ordered frequent syringing of opening with carbolic lotion. Discharge from wound of operation scanty.

Aug. 1*st*.—Bowels moved five times during night. Slept pretty well, did not sweat. Pulse 120: temperature 98½°. Tongue moister. Ordered a mixture of ac. sulph. dil.; co. spt. chloroform, and decoction of hæmatox. Red blushes on left forearm disapeared.

3*rd*.—Diarrhœa less; slept well. Tongue clean and moist. Wound improved in appearance, discharge more healthy-looking and more copious. No sweating. Pulse 128; temperature 98⅛° in morning.

5*th*.—Pulse 124; temperature 99⅛°. Diarrhœa continues. A blush with œdema on forehead. Felt chilly yesterday. Patient very weak. Tongue clean but glazed.

6*th*.—Patient continued to get weaker and died at 9 p. m. No autopsy was allowed, but the leg was examined. There was found to be no union between the bones. There was a collection of unhealthy pus around the lower end of the femur, which was partly stripped of periosteum and necrosed superficially.

Reviews and Notices of Books.

Transactions of the International Medical Congress of Philadelphia, 1876. Edited for the Congress by JOHN ASHURST, JR., A.M., M.D. Imp. 8vo. n, xlix, and pp. 1153. Philadelphia: Printed for the Congress, 1877.

The conception of holding an international medical congress on the occasion of the one-hundredth anniversary of the existence of the United States of America as a nation, was first entertained as early as 1872, when at a meeting of the Philadelphia County Medical Society, held in October of that year, Dr. J. G. Stetler moved that a general conference of the different Medical Societies and Colleges of Philadelphia should be held to determine what part the Medical profession should take in the approaching centennial celebration. Nothing further was done in this matter until January 1874, when a committee of the same Society was named, to consist of Drs. Turnbull, Stetler and O'Hara, to take the matter into consideration, and to bring it before the notice of other societies with the view of securing their co-operation in preparing some definite line of action. But one other society responded to the invitation. The Committee soon found that it did not fully represent the profession of Philadelphia, so that invitations were extended to several prominent members of the profession to take part in the deliberations. These invitations were cordially accepted, and eventually an organization was formed on the 29th of March, 1875, named "The Centennial Medical Commission of Philadelphia," with Samuel D. Gross, M.D., LL.D., &c., at its head as President. After much discussion the following programme was adopted. The Congress to meet in the city of Philadelphia in September, 1876, and to continue in session at least six days. That the morning of each day of meeting, should be devoted to the reading of discussions upon topics of general interest, and to the transaction of general business, and that in the afternoons the congress should meet in sections, for hearing papers and discussing scientific questions under each separate head, and for that

purpose it was decided that there shoutd be nine sections. We must here remark that if a lack of interest was displayed by the Medical profession generally of the city of Philadelphia at the inception of these proceedings, they fully made up for it afterwards, as the project had the warmest support and sympathy of the entire body of the profession of the city.

It was a grand conception. To celebrate the one-hundreth anniversary of the birth of a new nation, or shall we say the one hundredth anniversary of the separation of the child from its parent. An invitation to the scientific world to meet in judgment and learn what this young nation had accomplished during those one hundred years. Had it remained stationary or had it kept pace with the outside world? Had civilization and learning flourished or had it declined, or was the watchword *onward* in every mouth, and carried out to the full by each succeeding generation? What had this nation done to advance science and in what relative position did it stand with the scientific advance of other peoples? These were all questions of interest, and as though to render an account of its stewardship, this nation called together the representatives of other nations, not alone for social intercourse and pleasing personal reminiscence, but to lay claim to its position in the world of science, and to point with pride and satisfaction to the labour of its children, votaries of science and independent thought, who with all the disadvantages of isolation, were as capable of advancing the holiest interests of humanity, and benefiting their race, as those who lived under more favourable auspices. These remarks do not apply solely to that department of science to which the volume before us is devoted. We make them as applicable to general educational interests; and we must in the most emphatic terms commend the action of those who have given to the world in the volume before us a memorial work, and one which will, we have no doubt, be read with satisfaction and instruction, and frequently referred to by all who are so fortunate as to procure a copy.

The volume opens with an address of welcome pronounced by Professor Gross, after which will be found the minutes of

procedings of the Congress. Then follow eleven addresses; On Medical Progress in the United States, by Austin Flint, M.D., of New York; on Hygiene, by Dr. Bowditch of Boston; on Medical Chemistry and Toxicology, by Dr. Wormley of Columbus; on Surgery, by Prof. Paul F. Eve, of Nashville; on Medical Biography, by Dr. Toner of Washington, D.C.; on Obstetrics, by Dr. Parvin of Indianapolis · on Medical Jurisprudence, by Dr. Stanford E. Chaillé of New Orleans; on Mental Diseases, by Dr. J. P. Gray, of the New York State Lunatic Asylum, Utica, N.Y.; on American Medical Literature, by Dr. S. P. Yandell, of Louisville; on the Progress of Medical Education in the United States of America, by Dr. N. S. Davis of Chicago; and last, though not least, an address on the Scientific Work of the Medical Staff of the United States' Army, by Dr. J. J. Woodward, U. S. A., of Washington, D. C. These addresses, all of deep interest as pointing to the work accomplished by American physicians in their several departments, occupy about 300 pages of reading matter, and form a most interesting Medical History of the Country. Then commences the real work of the Congress by sections.

In the section on Medicine there are nine interesting and important papers on various topics. The first paper is from the pen of Dr. J. J. Woodward, U.S.A., on "Typho-malarial Fever; is it a special type of fever?" In this paper the author alludes to the comparison which has been drawn by German authors between the results of the American war of rebellion and the Franco-Prussian war, as bearing on the mortality of either army, and in which German writers claim a greater immunity from disease and death owing to their having profited by the scientific experience gained during former wars, and especially alluding to the American war. The author of the paper clearly demonstrates that this comparison is not a fair one, because the mortality amongst the Germans is based on an experience of a few months, whereas the American war lasted for over five years. It would appear that the deaths from disease in the Armies of the United States during the war including the year following the struggle, amounted to

200,000 men, whilst those who died in battle and from wounds, was about 100,000. In this estimate is included the number of prisoners of war who died in the hands of the enemy. He states that in reality the mortality of the American troops from disease was about one-third greater than that of the German army, and not as claimed by German writers, fifteen times as great. The author admits that in fact the actual difference in favor of the Germans was due to better discipline, and more careful administration of preventive medicine, but he alludes to other circumstances, such as raw troops from the North sent direct to malarial districts, and to the miasmatic valleys of the Mississippi, Ohio and the Potomac, whilst the Germans occupied the comparatively healthy plains of France. And he asks the very pertinent question: "How much of the difference was really due to the wisdom of man, how much to a more favorable climate, and the absence of the intense malarial poison to which all were exposed who bore our arms." This state of things gave rise to a species of bilious remittent fever, whilst a certain number of ordinary typhoid cases prevailed. After the Peninsular Campaign, with the siege of Yorktown, the army lay on the swampy borders of the Chickahominy, and the disease assumed formidable proportions, so that the hospitals in all the cities from Washington to New York were crowded with the sick. It was recognized by the medical attendants that they had to deal with a form of fever with unusual pathological complications, and in the reports this fever frequently appeared under the name of Chickahominy fever. A board of medical officers was summoned, and the author who had served with the army at the front, recognized the complex character of the disease which he regarded as a hybrid resulting from combined influences, such as malarial poison, and the ordinary causes of typhoid fever, together with, in many instances, a scorbutic taint, and proposed to designate this complex condition by the name of typho-malarial fever, which was adopted. The object the author had in this paper was to draw the attention of the profession to this condition,—not that the term typho-malarial was used to indicate any specific form of fever, but an intermingling of types of two well recognized conditions.

The next article is from Dr. J. Lewis Smith, physician to the Infant Hospital, New York, and embraces the question, " Are diphtheritic and pseudo-membranous croup identical or distinct affections ?" From the history, symptoms, contagious character and sequelæ of diphtheria, there can be no doubt in our own mind that diphtheria is a form of disease distinct from pseudo-membranous croup. However, the article before us is full of interest and will repay perusal.

The next article is by Dr. Roberts Bartholow, of Ohio Medical College, and the question submitted in his paper was: " Do the conditions of modern life favor specially the development of nervous diseases ?" and the conclusions the author arrives at are that nervous affections were as prevalent at early periods of the history of man as they are in the present day; that sickness and mortality has diminished, and length of days increased in modern times, and that in modern times nervous diseases have been more carefully studied and more accurately differentiated.

The next paper is a contribution to the etiology of epilepsy, by Dr. William B. Neftel of New York, which is followed by a practical paper on the influence of high altitudes on the progress of phthisis, by Dr. Charles Denison, of Denver, Colorado. This is an exceedingly well-written and carefully prepared paper, embracing as it does all the points of interest bearing on the subject under discussion. The author, while bringing before the profession the benefit to be derived from high altitudes in phthisis, notices the futility of sending all cases to that region with the hope of benefit, as he points out that in advanced cases the patient is merely benefited by the change, but this benefit is not permanent,

The theory advanced by Dr. Denison as to the action of high altitudes on phthisis is very plausible. He maintains that the lungs to be in health must be kept in full action, that rest is not the condition intended by nature in giving us a breathing apparatus; that the air in higher altitudes being rarefied it follows that it contains a proportionately smaller quantity of oxygen. The atmospheric pressure being less in degree, the capillary circulation in all the tissues is more active and to

acquire the quantity of oxygen necessary, the breathing must be deeper and fuller. This is followed by a quickened flow of blood, and produces an increased respiratory effort, hence a more perfect oxygenation of the blood occurs, consequent on increased expansion of the lung tissue, which promotes a healthful renewal of tissue, and the removal of impurities and disease germs, of which the body in phthisis is full. There is a short paper on the treatment of simple ulcer of the stomach, by M. le Docteur H. Lebert of Vevey, translated by Dr. Charles W. Dulles of Philadelphia.

The next paper is from our fellow citizen and colleague, Dr. R. P. Howard, on "Cases of Pernicious Progressive Anæmia, with some observations upon the ante and post-mortem conditions observed in that affection." This is a most interesting paper on a somewhat obscure affection, and gives proof of much research. At the end of the paper will be found a table showing statistics of sixty-two cases of pernicious progressive anæmia, four of which are reported by Dr. Howard himself. The author arrives at the following conclusions:

That all forms of anæmia, determined by the conditions under which they occur, may take on progressive and pernicious characters.

That it has not been proved that there is a distinct variety of anæmia, demanding the name "progressive pernicious."

That the spleen and lymphatic glands do not present any special lesion in pernicious anæmia.

That it is not proved that any change in the bone marrow is a cause of anæmia.

That if it be a cause it has yet to be shown whether it is a cause of a variety that should be specially called pernicious and progressive.

That it is premature to regard pernicious anæmia as a myelogenous pseudo-leukæmia.

That it is not more frequent in females than males, and that with a view of obtaining information concerning this disease as to its nature and causation a careful personal and family history

should be obtained, an accurate record should be kept of changes in the blood and urine, and an examination post-mortem of all the viscera and organs of the body, together with the bones and the marrow.

Dr. Ezra M. Hunt writes a paper on Alcohol and its Therapeutic relations as a food and as a medicine.

Professor Rudnew of St. Petersburgh furnishes a pathological Report of his investigations, chiefly on sclerosis of the vessels of the lungs, and of the arteries, and also his observations on the development of Cancer in Lymphatic Glands.

The section on Biology furnishes several interesting papers On the Microscopy of the blood, by Dr. Christopher Johnston. On the excretory function of the liver, by Austin Flint, Jr., M.D. A report of investigations in histology made under Professor Lavarikini. On the prevention, by salicylic acid, of fungous growths in solutions, by Dr. J. G. Richardson; and on the Mechanisms of Joints by Dr. Harrison Allen.

In the section on Surgery we find a number of very important papers, and the interest of this section must have been greatly enhanced by the presidency of Joseph Lister, F.R.S., of Edinburgh. The first article is on Antiseptic Surgery, by J. Hodgen, M.D., of St. Louis. A very interesting discussion followed the reading of this paper, which was adjourned to the following day, with a request to the President, Professor Lister, to address the section on the subject under discussion. This gave the Edinburgh professer an opportunity to discuss his favorite theme, and we have another paper on the subject of antiseptic surgery from the man who deserves the credit of originating and practically carrying out this method. The views of Mr. Lister are so universally known, that it would be superfluous to enter into details. During the reading of the paper the author gave a practical demonstration of his method of treating wounds antiseptically, on the person of a patient; and also spoke of the different kinds of carbolic acid. He likewise showed a spray producer, manufactured by Gardner of Edinburgh, and the apparatus employed in conducting experiments on the anti-

septic properties of various substances; and also prepared flasks in which, if any liquid is placed free from living organisms, it will remain without any putrefactive change until it dries up. There is an interesting paper on the treatment of Aneurism by Dr. H. W. Van Buren, of New York, which elicited a lively discussion, participated in by Mr. Joliffe Tufnell, of Dublin, Ireland, Dr. J. H. Pooley of Columbus Ohio, Dr. A. C. Post, New York, Dr. Geo. A. Otis, U. S. A., Dr. John Ashurst, Jr. of Philadelphia, and the President of the section Mr. Lister.

We come to the next paper by Lewis A. Sayre, M.D., of New York, which is on the subject of "The Pathology and Treatment of Morbus Coxarius." Dr. Sayre's views are very extensively known, so that it will be unnecessary to report them on this occasion. The discussion on Dr. Sayre's paper was on motion postponed until next meeting of the section, to afford the members an opportunity of witnessing a practical demonstration of the modes of treatment adopted by that surgeon, as several patients had been placed at his disposal in the wards of the Philadelphia Hospital.

The following day at 11 a.m., the members of the section met in the operating amphitheatre of the Hospital, and several cases of coxalgia in various stages were submitted to their inspection. One was a case of the disease in the third stage in a little boy of six years. He was emaciated and anæmic. The left thigh was flexed and adducted across the opposite limb and fixed, an opening existed in the outer side of the thigh near the junction of the upper with the middle third, which discharged freely. This was the opening of a sinus which led to diseased bone, and a large unopened abscess was found over the trochanter major. In consultation with the surgeons present, excision of the head of the femur was considered to be the only chance of giving relief to this child. Chloroform was administered and the operation proceeded with by Dr. Sayre, and the child at once placed on a wire cuirass. Dr. Sayre laid great stress on careful dressing and efficient nursing, and after the operation he stood the child on the cuirass against the side of the amphitheatre, remarking: "Now this child is ready for transportation." The subsequent

history of this case is given from notes furnished by Dr. Holland the Resident Physician to the Philadelphia Hospital, these are brought down to January, 1877, fifteen months after the operation. Dr. Barton in a note to Dr. Sayre states that he had examined the boy that day, (18th January, 1877), that he found five-eighths of an inch of shortening. On laying him on a table the small of the back and popliteal space came simultaneously down. There was great freedom of motion, so that he could rotate the leg freely outwards, making the side of the foot touch the table as he lay on on his back, or he could rotate the limb inwards, so as to touch the other foot with his toes, flexion and extension of the limbs was well performed. His general health had much improved, and his appetite ravenous.

At the subsequent meeting of the section a very lively discussion took place on the question of the traumatic origin of coxalgia, as embraced in the second proposition of the reader of this paper, or that "morbus coxarius" is almost always of traumatic origin, and not necessarily connected with a vitiated constitution. It was finally decided that on this point the section could not unanimously agree, and here we must stay our pen, for already has the length of this book notice extended beyond our limit. There are several other excellent papers in the surgical section which are all of great interest.

The section on Dermatology and Syphilography is also well represented, so is likewise that on Obstetrics, under the Presidency of Dr. Barnes of London. In the other sections the papers are of equal interest. Indeed the entire volume is a very creditable production, and contains much material which must be fully appreciated. We are unable to say whether the work is to be had by purchase. Several inquiries on this point have come to us, but we should refer any of our readers, those desirous of procuring a copy of this work to the editor, John Ashurst, Jr., M.D., Philadelphia, as there is no publisher named on the title-page, or application through Dawson Bros., St. James street, will, we doubt not, receive attention.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Buisson's Treatment of Hydrophobia.

An Edinburgh physician sends the following extract, which he states he copied from an old journal some years ago:—M. Buisson of Paris was inoculated by hydrophobia virus whilst attending a patient who was affected. He felt all the symptoms of the disease, constriction of the pharyngeal muscles, &c. He entered a Russian vapour bath, 107° Fahr., resolving to terminate his life by suicide. To his astonishment the symptoms gradually subsided, and he in time completely recovered. Since then he has treated eighty cases successfully. His mode of treatment is this: the person bitten should take a certain number of vapour baths, and every night should induce a violent perspiration by wrapping in flannels and lying under a feather bed, and by drinking freely of warm decoction of sarsaparilla. So convinced is he of this mode of treatment proving successful, that he will suffer himself to be inoculated with the virus Dancing is also recommended to produce sweating. Animals which do not perspire—as dogs, wolves and foxes—are most frequently affected with hydrophobia. Dancing was an old remedy for the cure of tarantula stings. (*The Lancet*, Sept. 29, 1877.)—*The Practitioner.*

Note on Lactopeptine.—Dr. Ivor Murray states he has been using this remedy somewhat extensively during the last year. One of his cases was that of a lady suffering from uterine affection with very obstinate dyspepsia, which had baffled all ordinary treatment. Lactopeptine in fifteen grain doses given three times a day in a little water after meals did more, he thinks, to restore her digestive power than anything he had previously prescribed. She has persevered in its use from time to time as the stomach appeared to require assistance. With the improvement in her general health the uterine symptoms

have also ameliorated. Dr. Murray has also used lactopeptine in a large number of cases of weakened digestion, and in the majority of cases with marked success. Even in very young children he has seen great benefit result from its employment, especially in those cases which are attended with obstinate vomiting. The composition of the preparation, which has been published, would, he thinks, lead to a favourable *à priori* opinion of its efficacy in the cases for which it is recommended, and he has no hesitation in stating that as far as he has used it the combination is very materially more successful in its results than its component parts in any combination in which he has hitherto employed them, whilst it is both more readily taken and retained than pepsine in those cases in which it is advisable to prescribe that remedy. (*British Medical Journal*, Oct. 13, 1867.)—*The Practitioner.*

The Prophylaxis of Phthisis.—At a meeting of the Paris Academy of Medicine, M. Lagneau read a paper which was referred to the Committee on Hygiene, in which he advocated strongly the enforcement of measures of public hygiene with a view to diminish the frequency of phthisis. This terrible scourge of the inhabitants of the temperate zone is, he showed, more prevalent in Paris, than in Berlin and London, reaching a mortality of 18 per cent.: a proportion in which it is exceeded by Brussels and Vienna. He pointed out that whereas formerly the male deaths from phthisis were less than the female, the proportions between the sexes has now become reversed, the male mortality being to the female as 115 to 100. Further that the mortality was higher by one-fourth among the immigrant population (country folk and foreigners) than among the native Parisians. After alluding to the fact that the disease prevails in warm and cold climates, M. Lagneau pointed out that certain regions enjoyed an immunity, such as certain altitudes in the Alps, Pyrenees, Cordilleras, Andes, the Mexican plateau, and certain northern countries, as Iceland, the Hebrides, portions of the north-west of Scotland, and the Faroe Islands. Although the only point in common

between these mountain districts and northern countries is the possession of a low temperature, he showed, however, that cold could not be considered as preventive of phthisis, for M. Homann has shown it to prevail at Christiansund, in 62° north latitude, with a mean annual temperature of 4.5° C. (40° F.), and MM. Etzel Billebon, and Guerault report a certain proportion of deaths from pulmonary consumption in Greenland. In France itself a far larger number of persons claim exemption from military service on account of chest disease in the northern departments, as those of the Nord and Pas du Calais, than in the rest of France ; but there is likewise a fair proportion even in the Mediterranean departments,—where sufferers are so often sent. M. Lagneau showed also that poverty and insufficient nourishment do not go hand in hand with phthisis, the inhabitants of those districts where the disease prevails being in much better circumstances than many others where phthisis is almost unknown. Pursuing his analysis further he finds a general concensus of opinion among French authorities as to the favouring effect of sedentary occupations and trades ; the department of Morbihan, which furnishes the fewest instances of the disease being also the least industrial part of the country. He urged therefore the formation of free gymnasia, the encouragement of athletic exercises, formation of choral societies, establishment of public sanatoria for the phthisical, prevention of over-crowding in workshops, and means taken to procure a good supply of air and light in newly built dwellings, legal restrictions against juvenile labour, the encouragement of physical exercises in the Lycées and schools, and the substitution of rural camps in place of barracks, where the young soldier could pass his term of military service. (*The Lancet*, Oct. 6th, 1877.)—*The Practitioner*.

Transfusion of Blood in Pernicious Anæmia.—At the medical congress, held at Hamburg this year, Professor Quincke reported two cases of successful transfusion of human blood in pernicious anæmia. After the transfusion, partial destruction of the red blood corpuscles took

place, manifesting itself in transient hæmo-globinuria, and corroborated by direct numeration of the corpuscles, the cause of which was probably the different character of the blood in the patient and the person from whom the blood was withdrawn. The blood corpuscles subsequently greatly increased in number, and the abnormally small and variously formed corpuscles disappeared. There can be no doubt that transfusion is extremely useful in some cases of pernicious anæmia. (*Med. chirurgische Rundschau*, March, 1877.)—*The Practitioner.*

Podophyllin in Habitual Constipation and Hæmorrhoids.—Dr. Rousselet gives the result of the employment of podophyllin in forty-seven cases. He finds the powder of podophyllum superior in its action to the resin, which, as sold, is often inoperative. In habitual constipation the use of the remedy must be continued for two or three months, and care should be taken that the action of the bowels should be solicited with regularity at the same hour every morning. He commences by prescribing about one-sixth of a grain, increasing the quantity to a small extent day by day till the desired action is obtained. The same quantity is then given daily for a fortnight, when at first one day, then two and three days are allowed to intervene between the doses. In cases of mechanical occlusion of the alimentary canal, podophyllin possesses the advantage that it may be used for a long period without harm. It is especially useful in hæmorrhoids, rendering the motions pultaceous, and quickly causing the disappearance of the swellings. (*Gazette Médicale de Paris*, Tome 6, No. 21, 26.) —*The Practitioner.*

Treatment of Fissures of the Breast by Picric Acid.—M. Charrier utilizes the hardening properties of picric acid in the treatment of mammary fissure. He paints the fissure once a day with a solution of thirty parts of picric acid to 1.000 of water, and also immerses the nipple in a little glass filled with a solution of picric of one part per 1,000 after each time of suckling.—(*British Medical Journal*, Oct, 6, 1877.)—*The Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1877.

MEDICAL EDUCATION.

We have heard that it is the intention of Laval University to establish a branch in this city, to include Faculties in Arts, Law, Medicine and Divinity. In the faculty of medicine, rumour indicates that the present School of Medicine and Surgery in affiliation with Victoria College, Cobourg, is to become the faculty of medicine of the Montreal branch of Laval University. We are unable to make any positive statement on this subject, because we do not happen to be in the way of gathering information, but we should suppose that rival interests would induce some aspirants to fame, to establish a new staff of teachers, and moreover, we do not quite see how the Montreal School of Medicine and Surgery which claims to be the Medical Faculty of Victoria College could consent to this change without due notice being given to its University authorities.

The establishment of another medical school, because this is virtually what this movement means, must be regarded as an element of weakness in our educational system, and one which if carried out will tend to lower the standard of medical education in this Province. There are already in full operation in the Province of Quebec four medical Schools, all possessing University privileges, and should a fifth be established it will be more than is required by the country, and will tend to laxity in teaching, as also in examination of candidates. It may be said that these bodies will be under the supervision of censors, or assessors appointed by the College of Physicians and Surgeons of the Province. This is true, but we do not think that even this will prevent abuses.

We are adverse to the present system of visitation, and hold

that it is a system more humiliating to the Universities than to leave them free to exercise their functions without espionage of any kind. The Laval University pressed its privileges before the Committee of the House at the introduction of the present Act, but conceded the right of visitation to the College of Physicians and Surgeons, while objecting to a central examining board. We questioned at the time the wisdom of that movement, but conceded the point as the general feeling of the representatives of the schools was in favor of the movement. We are still of opinion that it would be advantagious to have a central board of examiners, or, in other words, one door of entrance to the profession. This opinion is strengthened in view of the contemplated establishment of a fifth medical school in this Province of Quebec. If a central board of examiners, existed before whom all candidates would have to pass, then, indeed, might the number of teaching bodies be increased without detriment, but so long as the examination of their own pupils is left in the hands of the teachers of any school, so long will there remain a doubt in the minds of outsiders as to the impartiality of the examinations. If there existed but one examining body before whom all aspirants to practice medicine, surgery and midwifery would have pass, then indeed no reasonable objection could be raised to the multiplication of teaching bodies. The very best way to learn is to teach or to attempt to teach, so that if we were all teachers of the several branches of medical and surgical science, there might be hope of some at least striking out into untrodden paths and so benefiting the general store of knowledge. We trust that if any change is contemplated in the present law, that a central examining board will form the basis of that change. The schools would then be all placed on an equal footing, and the superiority in the method of teaching of any one school would soon become apparent in the character of the examinations passed by their pupils. The Universities would then hold the status of conferring alone an honorary title or degree, and would be very careful that none but those really deserving should participate in the honours conferred.

TRANSACTIONS OF THE CANADA MEDICAL ASSOCIATION.

We have received a copy of these transactions which form a neat volume of 244 pages, and we trust that this first attempt of the committee to publish a selection of the papers read before the association, will receive the liberal support of the profession in the Dominion. We think it an omission that a full report of the meetings of the various sections was not obtained and published. Some of the discussions which took place on the occasion of those meetings were very creditable and well worth a report, and would undoubtedly have added to the interest of the volume of transactiens before us. In publishing a volume of transactions of any society more interest and importance lies in the opinions expressed and in the criticisms offered by members present on the subject-matter under discussion than in the enunciation of the writer of any paper. We make this suggestion to the publication committee with all due respect, and trust that in future if a volume of transactions is to see the light of day that the opinions of those who discuss the papers read before the sections shall be duly recorded, and if they possess any value let them appear in their proper place.

However, this book may be regarded as a national work, and is so far creditable, as it contains a number of papers of worth. To subscribers this work is issued at the nominal sum of $1.25. Non-subscribers will be required to pay the sum of $2.00. We will in a future number endeavour to give our readers some idea of the contents of this volume. To all we say send in your names as subscribers. Names and subscriptions should be sent to Dr. David, Montreal, General Secretary of the Association, or to Dr. Osler, 1351 St. Catherine street, Montreal, Secretary to the Publication Committee.

COLLEGE OF PHYSICIANS AND SURGEONS, P.Q.

We understand that it is the intention to call a special meeting of the College of Physicians and Surgeons of the Province of Quebec to take into consideration the desirableness of changing the law in respect to the length of what is termed a medical session, or in other words, to oblige all medical schools now in

existence, or that may hereafter be established, to deliver courses of lectures on the various branches of medical science, to extend over a period of nine months.

The object, so far as we are able to ascertain, is to oblige the three medical schools in Montreal that at present deliver sessions of six months lectures on the various branches, to change their curriculum and deliver sessions of nine months each. It would appear that if the Laval University establishes a branch medical school in this city it would be on the condition that sessions of lectures will be of the same duration, and on the same terms as those delivered by the parent institution, and that unless the medical lectures of McGill University, Bishop's Colllege, and Victoria College are of the same length and duration an unfair advantage would be held by those schools. We trust that the subject will receive careful deliberation as it is a matter which involves the future interests of the three Medical Schools above named.

THE WARREN PRIZE.

We have been requested to make the following announcement of the Warren triennial prize.

The Warren prize committee, consisting of the visiting physicians and surgeons of the Massachusetts General Hospital, have awarded the prize of the present year, amounting to $371.41, to E. O. Shakspeare, M.D., of Philadelphia, for an essay on On the the Healing of Arteries after Ligation.

The committee also announce that the subject for 1880 will be Original Observations in Physiology, Surgery, and Pathological Anatomy.

Essays should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before, February 1st, 1880. The amount of the prize will be $400.

Your obedient servant, R. M. HODGES,

Secretary Physicians and Surgeons of the Massachusetts General Hospital
November 13, 1877.

The object of this prize is to stimulate original investigations, and for this purpose the choice of a subject, within certain limits, is left to the option of the writer. The above reward is only the

second that has been made since the establishment of the prize. Ample time is given from the present up to the 1st February, 1880, at which period all the essays that are intended to compete must be in the hands of the committee. Here is a chance for our Canadians, as the competition is open to all Americans as well as those from abroad. Philadelphia has, we understand, carried off both the prizes that have been awarded.

PARRISH HALL,—A PRIVATE HOME FOR OPIUM HABITUES, BROOKLYN, N. Y.

We have received a circular announcing the opening of this institution. This home is the only one, specially devoted to the care of opium eaters, in the United States of America. The home is located in the most elevated suburb of Brooklyn, and commands a view of the city of New York, Staten Island, and New York Bay, as well as New Jersey. The consumption of opium must be very large in the neighbouring Republic to necessitate the opening of such an institution. We have long known that morphia and other preparations of opium are largely used by Americans, very frequently has the habit been acquired by the injudicious prescribing of opiates by physicians, and in course of time the indulgence in the constant use of opiates has been inevitable. It should be regarded as a step in the right direction to provide a means to overcome this pernicious habit and we believe that nothing will conduce to a more careful administration of opiates on the part of physicians than this practical protest against the custom. That the custom has become very general is a fact which few will deny who have had any opportunity of judging of this matter.

Some isolated cases have come before us personally, wherein large doses of morphia have been indulged in, and, indeed, become the habit of life. The agony of abstinence from the customary stimulus is graphically portrayed by de Quincy and other writers, who have detailed their own experience of the misery they endured. It is far greater misery than abstinence from alcoholic stimulants. In the case of the habitual drunkard the latter class are excluded from the home, inasmuch as it has

been found that opium eaters express an objection to entering a general inebriate asylum. We may state that the asylum or home is under the medical care of Dr. J. B. Mattison, and Dr. A. M. Mathias, with Joseph Parrish, M.D., as Consulting Physician, and in calling attention to the establishment of this institution we desire to wish them every success in their work of benevolence.

Medical Items and News.

Mr. Thomas Annandale has been appointed to the chair of Clinical Surgery, University of Edinburgh, vacated by Mr. Lister on his removal to King's College, London.

Dr. Paul F. Eve, the eminent Surgeon of Nashville, died suddenly while in attendance on a patient on the 3rd November last. Dr. Eve delivered the address on Surgery before the International Medical Congress at Philadelphia last year. He was a most successful lithotomist, and it is said had performed that operation more frequently than any other living surgeon.

WYETH'S DIALYZED IRON AND COMPRESSED TABLETS.

Dialyzed Iron is in many respects, superior to other ferruginous preparations. It is a solution of the oxide of iron obtained by a process of endosmosis and is nearly free from acid. It is of regular strength, is not styptic in taste, does not blacken the teeth, nor is its use followed by constipation, effects which nearly all the preparations of iron produce. We have used the preparation of Messrs. John Wyeth & Bros. of Philadelphia, and find it regular in its action, and believe it to be an excellent ferruginous tonic. It seems to be very suitable for children as its taste is not objectionable, and in persons in whom iron preparations disagree we have prescribed it with satisfactory results.

Messrs. Wyeth & Bros. also prepare a number of articles of materia medica in compressed tablets, which, from the mode of preparation, ought to be very soluble and very efficient. The strength of each preparation is indicated, so that the physician can with certainty know what he is prescribing. We believe that these preparations are to be had of all druggists.

CANADA

MEDICAL & SURGICAL JOURNAL

JANUARY, 1878.

Original Communications.

HYDROMETRA WITH ABSENCE OF THE VAGINA.

Atresia of the External Os; Surgical Operation; Recovery.

By W. Bayard, M.D. &c., St. John N. B.

In August, 1876, I was called to visit Miss H., aged 22 years, intelligent, well-formed and apparently healthy. I found her in bed labouring under retention of urine and suffering with severe paroxysmal pains like those of labor. The abdomen was enlarged equal in size to what it should be in about the fourth month of gestation.

I had not received a history of her case, and when proceeding to draw off the urine, I found the external genital organs deficient. The clitoris and meatus urinarius alone existed; there was a line where the labia should have been—nothing more—and the part was well covered with hair. The pains continued notwithstanding the relief of the bladder, and only yielded to the hypodermic injection of morphia.

She informed me that "every month" for about a year previous to my visit she had been subject to pain, more or less severe, which lasted between three and four days, during which time the breasts were swollen and tender and the bladder irritable;—that each succeeding month the pain increased in severity;—that she did not observe any enlargement of the figure until about six months before I saw her, and that except

at this "monthly period" she felt no inconvenience of any kind.

Concluding that I had to deal with a case of hydrometra or hæmatometra, I explained the nature of the case to her mother and the necessity for immediate relief, which could only be obtained by a surgical operation. After a good deal of persuasion she consented that the operation should be performed, but on condition that "no man but myself should be present at it." Accordingly I was compelled to make assistants of her mother and aunt.

The bowels having been relieved by an enema, the patient was placed in the position for the operation of lithotomy, the aunt gave her ether, her mother held the catheter in the urethra, while, with the index finger of the left hand in the rectum, I made a transverse incision two inches long midway between the anus and urethra, through the integuments and cellular tissue, and with the handle of the knife and the fingers I carefully tore open a passage, making the wound exactly 2¼ inches deep before I came to the tumour. At the base of the wound there existed a slightly elevated circular ridge which I considered was the sealed os uteri, and through it I passed a large sized trocar, when out poured a fluid nearly as thick as molasses but darker in colour, and, as is usual in such cases, without offensive odour. For the purpose of ascertaining the extent of dilatation of the womb, I introduced through the canula the longest probe I had—eleven inches—without being able to reach the fundus of that organ.

In order to secure the passage of the fluid from the uterus *slowly* I introduced a soft rubber catheter through the canula, which was then removed; when she was carefully placed in bed with strict directions not to allow pressure upon the abdomen. The ether did not produce sickness, but she complained of pain for which an anodyne was given She passed a good night, during which time upwards of two quarts of fluid flowed from the womb. On the second day it ceased passing, when, fearing decomposition of any that might have remained, warm water was carefully injected through the catheter and repeated each day until it passed away without colour.

The catheter was removed on the fifth day and the artificial os was kept dilated with carbolized sponge-tents.

The external wound was dilated from day to day with the fingers, until the sixteenth day, when, finding contraction commencing, I moulded a gutta-percha plug of such a size and shape as to fit accurately the wound. It had a flange on its outer end to prevent pressure upon the os uteri which continued sensitive. This was worn until the wound healed, daily lubricating it with carbolized oil.

On the twenty-fourth day after the operation the plug was removed, and on the twenty-sixth day she menstruated, continuing to do so with regularity since that period.

About six weeks ago I examined the uterus with the sound and found its length normal, its neck much shortened and its fundus movable but not to its proper extent. The artificial vagina,—if it may be so named—admits the finger with ease, but it has become shortened to the depth of a little over an inch, and the neck of the womb is firmly attached to the base of the vagina.

CASE OF ACUTE TETANUS FOLLOWING A WOUND IN THE FOOT.

Treated by Chloral Hydrate.—Recovery.

By ARCHIBALD LAWSON M.D., M. R. C. S. Eng., Professor of Surgery Halifax School of Medicine.

The following case of tetanus is, I think interesting :—

Geo. Smith, aged 10, a fisherman's son of Sambro, on August 2nd. whilst barefoot, accidentally ran against a scythe, causing a wound of left instep implicating the extensor tendons, also one nearly severing the little toe of the same foot. He was brought to Halifax and the wound dressed, he then returned On August 9th I saw him for the first time ; wound of instep granulating healthily, a small piece of bone protruding from wound of little toe which was removed. Sweating profusely, trismus and opisthotonos well marked, with frequent spasms,

difficulty of deglutition and respiration, pulse 144, temp. 103°, pain through body, risus sardonicus marked. Gave gr. xvi. hydrate chloral immediately and gr. viii. to be given every hour with mustard to whole length of spine, wound dressed with carbolic acid and oil (1-20). Remained all night and administered the chloral myself, with as much milk as he could suck through the teeth and on accouut of the great difficulty in swallowing it required much patience to give either. The boy soon slept and was awakened during the night to take chloral and milk. Spasms were much less frequent after the chloral.

Aug. 11th. Worse again, boy refusing chloral, also milk, temp. 101°½ pulse 130 and weak, sweating profusely, frequent spasms, no relief of trismus or opisthotonos,—remained three hours giving gr. viii, chloral every hour. Gave also during this time half pint of milk. Left him much relieved.

Aug. 14 Not any worse, pulse 116, temp. 99°, but few spasms, trismus very slightly relieved, spine still stiff but limbs can be bent up on abdomen if care is used. Grains viii chloral every hour, takes but very little milk, bowels relieved by enema, passed quantities of flatus.

Aug. 17th. Was doing well since last visit but the boy refusing chloral the spasms returned to some extent. Gave gr. xvi of chloral with marked relief and ordered gr. viii of chloral every two hours with as much milk as possible. Boy very weak.

Aug. 20th. Boy better, pulse 98, temp 99°, spasms few and slight, trismus somewhat relaxed, bowels moved by injection, still fights against medicine and nourishment.

Aug. 23. Decidedly improving, pulse 88, temp. 99°, jaws still more relaxed, scarcely any spasms except when moved and even then slight, wounds nearly healed. Gave chloral gr. vii every four hours which was continued for a week longer and then given only at night. From this time continued to improve and on September 7th. the boy's father reports that his jaws are looser than ever.

This case is interesting in that it is a recovery from a very acute case, which is rare, that no drug except chloral was administered, no stimulants, and nothing but milk and very little of that for a fortnight.

CASE OF PERFORATION OF THE COLON.

DEATH: AUTOPSY.

Reported by Dr. E. B. C. HANINGTON, Resident Physician.
(St. John, N. B., General Public Hospital.)

P. McS., aged 42, a ship-carpenter, was admitted into the General Public Hospital on August 15th. 1877, complaining of an intense colicky pain in the lower part of the abdomen.

HISTORY PRIOR TO ADMISSION.

He has always been temperate in all things and rarely indulged in alcoholic beverages. Has been remarkably healthy and has never had any kind of fever, nor any peritoneal nor intestinal trouble. His bowels have acted regularly as a rule. His history of the present trouble is as follows:—On the morning of the 14th he ate his breakfast of which neither meat nor fish formed a part, had his bowels opened and then went to work at his trade, feeling perfectly well. At noon he took dinner, the meat part of which consisted of a mutton stew, and at one o'clock returned to his work. At 5 P.M. a sudden, sharp, "clawing" pain "doubled him up," and he at once stopped working and went home. Hot fomentations were applied all night but gave no relief, and when morning came he walked to the hospital and was at once admitted.

CONDITION ON ADMISSION 9 A.M.

He is a stout, well-made, muscular man, a good sample of his class. Face is indicative of extreme anguish, extremities cool, abdominal muscles tense and abdomen tympanitic. No hernia; pulse 90 and small. He has an intense desire to have his bowels opened, feeling that all his sufferings would end with an evacuation. There is neither heat nor tenderness on the

abdominal surface. He has vomited once while being put in bed.

A hot fomentation was ordered to be applied to the abdomen and the following draught administered; ℞ Ol. Ricini. ℥ss, Tr. Opii. 3ss, Aqua Menth. Pip. ℥i.

This was vomited up almost directly and was followed by frequent emesis of a greenish coloured fluid with a bitter taste and sour odour. He passed his urine easily and it was normal in appearance. The vomiting continuing brandy and ice were administered, and a sinapism applied to the epigastrium.

At noon an enema was ordered of the following; ℞ Ol. Terebinthin. 3ii, Ol. Ricini ℥ii, Aqua O.i, but it was returned unaccompanied by fæces in ten minutes. The vomiting has increased and the extremities are becoming cold. Pulse 120 and small; sufferings intense. Hot fomentations were kept applied on his abdomen and he was rolled in hot blankets and surrounded by heated bottles. The following was ordered to be taken every three hours; ℞ Liq. Morph. *m.*x, Pot. Bromid. gr. xv, Muc. Acac. ℥i. Ice and brandy to be continued.

6. P. M. Appears better and has a more cheerful countenance. Pulse 100 and fuller, but he has still the same intense desire to have his bowels opened. No tenderness over the abdomen but the tympanites has increased.

8.30 P. M. Pulse failed and became very thready and quick. The vomiting has increased in frequency but has no fæcal character. He is perfectly sensible but nearly distracted with the agony of pain in his abdomen. Bismuth trisnit gr. x was given followed with pieces of ice and brandy every few minutes.

10.30 P.M. The former enema was repeated with the addition of Tr. Opii. 3ii. This remained up and gave almost immediate relief of the most prominent symptom. He was seen at this time by the visiting physician, Dr. Hamilton, who ordered a continuance of the mixture and abundant warmth.

Aug. 16th., 1 A.M. Complains less of pain; pulse barely perceptible; vomiting has ceased. There are marked signs of collapse. The enema has not returned. He is perfectly conscious but is sinking fast. He died at 2.15 A. M.

AUTOPSY 14 HOURS AFTER DEATH.

Rigor mortis strongly marked; abdomen tense, enlarged and tympanitic, and slightly discoloured at the lower part.

On section of the abdomen a most sickening odour arose from the opening and the ascending and transverse colon appeared distended with gas and very prominent. The ascending and transverse meso-colon are dark coloured with congested blood. The peritoneal cavity contains ℥xii of fluid evidently consisting of the enema last given.

Thoracic Cavity.—Lungs normal and crepitant throughout. There are no signs of disease about the heart; the right side is filled with dark clots, the left is empty. Liver and gall-bladder healthy, the latter is full and the gall duct pervious. Rectum empty and sphincter ani closed. Commencing at the lower end of the colon and extending upwards for 39 inches the gut is of a crimson-black colour externally, highly congested, and presenting on the free margin of the upper part of the sigmoid flexure a slit or tear, with narrow, thin, yet well-marked red, everted edges. This opening is ¾ of an inch in length and is directed transversely across the intestine. It appears as if cut with a sharp instrument. A lumbricoides is partly through this opening, about one-half hanging outside the gut, while on the mesentery near the perforation is a triangular piece of bone smooth and clean as if boiled.

This bone is ¼ of an inch wide at the base; the sides are ¾ long and the apex is a thin point. The gut when slit up is coated with a black greasy slime and has a most repulsive odour. In the cæcum is a soft mass of fæces; the ileum is empty.

(The preparation of intestine showing perforation &c., is preserved in the hospital museum.)

CASE OF PASSAGE OF HAIRS IN THE URINE.

BY JAMES A. SEWELL., M.D., L.R.C.S., EDIN.

DEAN OF THE MEDICAL FACULTY, LAVAL UNIVERSITY, QUEBEC.

In the number of your JOURNAL for October, 1873, I published a case of the passage of hairs, apparently from the bladder, giving rise to considerable bladder irritation. This

occurred in a child of nearly four years of age, an inmate of the Female Orphan Asylum of this city. After each discharge of urine there was found in the chamber a number of hairs varying from one to seven inches in length, and on examination under the microscope each hair showed a well-defined bulb and all the characteristics of ordinary hair. These hairs occasionally were fine, and light in color, but at other times they were coarse and of a darker hue. The number varied—sometimes there would be only six or eight, but occasionally as many as twenty hairs were passed at a time. Sometimes she would draw from her mouth several hairs, varying in color, and being from eight to ten inches in length. In order to satisfy myself as to the presence of these hairs in the water, I on one occasion caused a chamber to be well washed and dried, and then required the child to make water in my presence. The result was the same, namely, several hairs at the bottom of the vessel.

About a fortnight ago my little patient took ill, had several convulsions, and died in ten days. Up to this time no opinion could be formed as to whence the hairs came from. Yesterday, however, I made a *post-mortem* examination, assisted by Drs. Lemieux and Parke, by which the mystery, so far as the hairs in the urine was concerned, was fully solved. Unfortunately, circumstances over which we had no control prevented us from prosecuting the dissection with a view to discover the source of those hairs which were drawn from the mouth.

Autopsy.—Body much emaciated and unusually blanched. On making an incision and exposing the viscera of the chest and abdomen, these were all found particularly dry, there being not even a *moisture* on any of the organs. The stomach, intestines, liver, lungs, spleen, &c., were quite healthy. On removing the bladder and uterus, with its appendages, the former was opened and found quite normal. The uterus was very small, very soft and very flabby. On slitting up the vagina and the uterus to its fundus, we found the os highly inflamed, patulous and the lips everted; the neck of the organ and part of the body were also in a high state of inflammation, the fundus being healthy as well as the ovaries. In the body of the organ we found two hairs, each half an inch in length.

The stomach was healthy and contained no hairs. I should have remarked that the matron had noticed that during her last illness, the child had passed but comparatively few hairs. The fact, however, of these hairs being discovered, in the uterus, together with the inflamed state of that organ, proves, I think, satisfactorily that the others found in the water during the last six years or more, came from the same source. Those from the mouth, as well their source. must, so far as this case is concerned, remain a mystery.

Quebec, Dec. 23, 1877.

(We are at a loss to understand whence the hairs mentioned in the above unique case could have come from unless they had been intentionally introduced. Children, even of a very tender age, have before now acquired the habit and have practised masturbation. Several well authenticated cases are on record, and we naturally conclude that it is possible that this was a case in point. There are several facts connected with this case which give this impression. In the first place the hairs apparently passed in the urine were not always of the same colour or quality. Sometimes they were light in colour, and fine in quality, but occasionally they were dark and coarse. Again take the fact that the child simultaneously drew from her mouth several hairs somewhat identical in character to those passed in the urine, as though the child had used her mouth as a store-house in which to secrete the hairs which were subsequently utilized for other purposes. The bladder was found healthy, and contained no hairs, but the uterus was small, soft and flabby, the os uteri and body of the uterus highly inflamed, the os patulous and lips everted—a most unusual condition in a child of eight years. Then, again, take the cause or manner of her death—from convulsions. This points to a degree of nervous irritation and excitement that would very likely follow on a continuance of the pernicious practice above referred to. There were found two hairs in the body of the uterus, but whether they had any attachment, or were lying free, is not recorded. If the source of the hairs was any portion of the lining of any of the passages, from the presence of dermal tissue, it would have been apparent.—Ed.)

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Large incised wound of the Eye-ball involving the ciliary region. — Recovery with good vision. — Reported by F. BULLER, M.D., Oculist and Aurist to the Montreal General Hospital.

On the 30th of June last M. McN., æt. 20, bar-tender, was struck in the face with a fragment of glass from the neck of a soda-water bottle which exploded in his hands whilst he was extracting the cork with a pointed instrument which bar-tenders too often employ for this purpose.

About an hour after the occurrence of the injury he was brought to my consulting room by one of his confreres. I found a superficial wound in the left cheek, about ¾ of an inch in length, extending obliquely, upwards and inwards nearly to the edge of the lower lid, another through the whole thickness of the upper lid, near its inner extremity, and a deep cut about ¾ of an inch in length at the upper and inner angle of the orbit; these three wounds were evidently all made by the same projectile which in its upward course, had also cut through as much of the eye-ball as came within its reach. Traced from below the wound of the eye-ball extended from about two lines below the cornea, near the vertical meridian, obliquely through the inner margin of the cornea and again through the sclerotic along the horizontal meridian to the extent of more than two lines. The wound in the eye-ball was thus over half an inch in length. The aqueous humour had all escaped and there was a large prolapse of iris. In addition to the prolapse of iris a dark mass projected between the lips of the wound. This I judged from its position and appearance to be a portion of the ciliary body. All bleeding had ceased and the parts were easily inspected, vision was only roughly tested, but the patient could count fingers held a short distance in front of the eye.

No vitreous had escaped. This could only be explained by

the oblique direction of the wound. It would seem that the piece of glass had cut through the ciliary ligament and separated a portion of the ciliary body from the sclerotic; this was the dark mass that projected through the inner part of the wound. Owing to the proverbially dangerous character of wounds through the ciliary region, it became a question of primary importance how the eye could be saved without incurring the risk of sympathetic ophthalmia, obviously it would not have been safe to leave the protruded parts as they were, and the size of the wound precluded the possibility of restoring them to, and retaining them in, their normal position; it was therefore deemed advisable to cut away the protruding portions, both of iris and ciliary body. With this object in view, the patient was brought profoundly under the influence of sulphuric ether, and with the assistance of Dr. Donald Baynes, and Mr. McDonald, (medical student), I proceeded to operate.

The prolapsed iris was removed in the ordinary way with a pair of fine forceps and scissors.

I then seized the protruding portion of the ciliary body, and cut away as much of it as could be reached, this was of course, followed by a large escape of vitreous, which was also cut off level with the wound. Only a few drops of blood were lost, but as more than a third part of the vitreous humour was lost, the eyeball became quite flaccid. Two fine silk sutures passed from within outwards, through the whole thickness of the sclerotic sufficed to bring the edges of the wound into good apposition throughout its whole extent. The skin wounds were then united by fine sutures, and as they subsequently healed by first intention require no further mention. A light compressive bandage was applied to the eye and the patient sent home in a cab as soon as he was sufficiently recovered from the anæsthetic.

At 10 p. m. the same day I found the eye slightly painful, and moderately injected, but of normal shape, and the anterior chamber restored.

Ordered atropine instillations every six hours, and cold compresses instead of the compressive bandage.

The following day the patient was removed to the Montreal

General Hospital, the eye looking well; the same treatment continued. Bowels to be kept relaxed by compound senna mixture. Milk diet and light extras ordered.

The same treatment continued till July 7th. The wound is now closed excepting at the inner extremity where there is a small protrusion of vitreous. Eye less irritable, but waters when exposed to the light, and occasionally feels painful at night.

To continue using the solution of atropia but omit the cold applications, and keep the eye closed with a compressive bandage. Patient permitted to be up during the day.

July 13th.—The little bead of vitreous has disappeared, the wound is apparently firmly united in its whole length, and the eye feels quite comfortable.

July 17th.—Removed the two stitches in the sclerotic to-day. They might have been taken away some days earlier but did not appear to be creating any disturbance and were therefore allowed to remain longer than was really necessary.

July 23rd.—The eye is almost free from injection, but flushes and waters a little when exposed to strong light. The ophthalmoscope reveals nothing abnormal, but there is iii $\frac{1}{-}$ of myopia, when this is corrected vision = $\frac{20}{20}$. The wound in the sclerotic has left a narrow dusky, reddish-blue scar, and the inner margin of the cornea is somewhat turbid.

The anterior chamber is shallow, and the removal of the portion of iris as stated above has left a large coloboma artificialis, with a slight adhesion between the upper cut edge of the iris and the lens capsule.

July 27th.—Discharged from the hospital with permission to resume his employment, but to protect the eye from light by wearing a small shade.

Sept. 13th.—The condition of the eye has remained perfectly satisfactory since his discharge, but he thinks it has become more short-sighted. This is actually the case, for a concave glass nine inches focus is now required to bring vision up to $\frac{20}{20}$. Can read fine print (*Jæger No.* 1) from 10″ to 4″, showing that the power of adjustment has not materially suffered, as might have been expected after destruction of a part of the suspensory

ligament of the lens, which necessarily occurred when the exposed portion of the uveal tract was removed. The pupil responds readily to light. By focal illumination, a distinct white ridge may be seen projecting inwards towards the margin of the lens, from the locality originally occupied by ciliary processes which were cut away.

Dec. 20th.—A careful examination of the eye, which, beyond the artificial pupil and a narrow dark line in the sclerotic at the seat of injury, presents nothing abnormal to the ordinary observer, now shows a compound myopic astigmatism, which may be so far corrected by — 11 sph. ○ — 24 cyl., that vision is improved from $\frac{1}{200}$ to $\frac{20}{30}$.

The white ridge in the ciliary region has a somewhat flocculent appearance, and is more distinct than at the last examination; it reaches in fact to the inner margin of the lens, and presents a correspondingly curved outline. A few dark specks are visible by mirror illumination in the inner and anterior portion of the vitreous, these whisk about rapidly when the eye moves, showing an abnormally fluid condition of the same. The myopia and astigmatism are easly verified by the ophthalmoscope. Both retina and optic nerve appear perfectly healthy.

Remarks.—That the human eye is capable of sustaining very severe injury without destroying its functions as an organ of vision, is a matter of every-day experience; there are, however, some points in the above case of more than ordinary interest. In the first place, so extensive an injury in the ciliary region would, *à priori*, render the prognosis unfavourable on account of the tendency to sympathetic inflammation of the other eye after wounds in this part of the eyeball. This tendency is generally acknowledged to be due to the irritation of those filaments of the ciliary nerves which happen to become involved in the cicatrix after healing has taken place. In the present instance, this danger was probably obviated by the complete removal of the parts carrying such nervous filaments as were likely to cause subsequent mischief in this way. The principle here inculcated may, perhaps, be susceptible of a more extensive application than might at first sight be imagined, inasmuch

as it would not be difficult to enlarge a comparatively small wound in the ciliary region sufficiently to permit of a similar operation being done, and, where the age and constitution of the patient were such as to render healing by first intention a likely event, such an enlargement of the wound would probably not prove injurious.

That a very large loss of vitreous does not by any means always entail serious consequences, is a fact already sufficiently well known. A subsequent increase in the intra-ocular tension, owing to an undue secretion of fluid to replace the lost vitreous, had not up to the time of the last observation been manifested, for the myopia, which undoubtedly became developed after the injury, can be explained, in part at least, by the alteration in the position, and possibly also in the shape of the lens; this view will also account for the astigmatism which certainly did not exist when vision was first tested after recovery had taken place. It seems only reasonable to suppose that the ciliary muscle no longer acts on all parts of the lens alike, and that this structure has gradually undergone a change in shape, and hence the astigmatism—for had the latter been due to alteration in the shape of the cornea, we might expect to find it diminish with time, just as does the astigmation which follows certain operations for the removal of cataract.

Two cases of Colotomy in the left loin, performed for relief in Cancer of the rectum.—By G. E. Fenwick, M. D. From a report by the late J. D. Cline, B.A., M.D.

Case I.—The first of these two cases was admitted into the Montreal General Hospital on the 7th January, 1876. It is of special interest, inasmuch as it occurred in a child of 12 years, a most unusual age at which to meet with disease of this nature. The little girl was remarkably developed for her age, more resembling a girl of 15 or 16 years.

From the appearance of the growth it was at first taken for syphilitic condylomata, as it more resembled that condition than

epithelioma, and from the circumstances of her precocity it was regarded as more likely to be syphilitic than cancerous. It was very extensive and presented a broad flat raised surface, extending up the bowel as far as the finger could reach, with here and there intervals of healthy mucous membrane. There was no history of syphilis, nor had there ever been intercourse, judging from the appearance of the genitals, nevertheless, it was deemed advisable to place the patient on constitutional treatment—this was done, and the case carefully watched.

PREVIOUS HISTORY.—Her mother says that she has had a soreness and irritation about the anus since infancy, but she never complained of any actual pain until about six months ago, when she noticed pain and uneasiness which was increased whenever she went to stool. This was experienced at the anus and extended up the bowel, this continued after each act of defecation and lasted for several hours. A distinct lump or growth, was observed chiefly confined to the left side, and it gradually engaged the entire sphincter to such a degree that she lost the power to retain the fæces, so that her clothes were constantly soiled with fæcal matter as well as with a fœtid discharge which came from the ulcerated surface. When admitted into the hospital her general condition was remarkably good. She was pale but tolerably well nourished, with, however, an expression of anxiety in her face. This probably proceeded from the anticipation of some operative measure being necessary for her relief. The little girl was placed on tonics and also was given the sixteenth of a grain of bichloride of mercury, thrice daily. This was followed up carefully and continued for some time until the specific effect of the mercury began to show itself, but without any benefit whatever; locally, the parts were kept clean and the surface of the sore at first touched with strong nitric acid, and subsequently an ointment of the protoiodide of mercury, grs. v to the ʒ i was applied. At the end of five or six weeks constitutional treatment the growth was larger and more protuberant; it was extending round the anus so that two-thirds of the circumference of the gut was engaged in the mass. The discharge was constant and ichorous mixed with blood, and the

little girl was in a most lamentable condition. The diseased bowel bled readily on irritation. The mercurials were stopped and the tonics, with good diet, were persevered with. She improved in general appearance and health but the local malady steadily increased. Under these circumstances it was deemed advisable to recommend the operation of Colotomy with a view of ameliorating her condition. This was determined on because of the steady advance of the disease, it was believed that, eventually the rectum would become completely obstructed, and furthermore, the constant passage of fæcal matter over the diseased mass produced great distress.

The friends having consented to the proposal, a consultation of the Medical Staff of the Hospital was summoned, and the operation decided upon. Dr. Fenwick determined to open the colon in the left loin, In performing the operation, he followed the plan formerly adopted by him and which is recommended by Bryant and other Surgical authorities. Before commencing the operation, by accurate measurement, he found the point midway between the anterior and posterior superior spines of the ilium. This was marked. He then drew a perpendicular line upwards towards the lower rib and one inch behind this point. The patient was placed on her right side with a pillow under the loin, and chloroform was administered. The operation was then commenced by an incision of about four inches in length obliquely downwards and inwards midway between the crest of the ilium and the last rib, and bisecting the perpendicular line at about its centre. This incision cut through the skin, fascia and aponeurosis of the external oblique, exposing the fibres of the internal oblique muscle. This was next divided on a director and the fascia lumborum came into view; this was likewise divided, when the fat in front of the kidney became apparent. On displacing this the colon was sought, and with some difficulty found; this was due to its flaccid and empty condition. To facilitate finding the colon the bowel was distended with air, and on carefully opening the fascia transversalis, the bowel protruded and was transfixed with two curved needles, and attached to the edges of the skin in

the usual way. The peritoneum was not injured, and the little girl recovered without a bad symptom. Her temperature never rose above 101°, which it registered the first few nights after the operation. As the wound healed the edges became somewhat inverted, so that bougies were ordered to be introduced into the bowel to dilate the opening. The mass of disease in the rectum increased in size, so that before her discharge from the hospital, which was at the end of six or eight weeks, the fæces passed entirely through the artificial opening.

Case of Cancer of the Rectum, almost complete obstruction of the bowel.—Colotomy. — Recovery. — By DR. FENWICK.— Reported by JAMES BELL, M.D. Assistant House Surgeon, Montreal General Hospital.

M. L., æt. 62, was admitted on the 7th November, 1877, suffering from cancer of the rectum. There is no history in his family of cancer, tubercle, or nervous diseases. All his relatives have been strong, robust people, and long-lived. The patient himself has always enjoyed good health, led a very active life, and at one time drank freely. Had an attack of inflammation of the bowels in 1844. About 12 years ago suffered from external piles, these were treated by the application of strong caustics, probably nitric acid, and with some relief. About twelve or fourteen months ago had an attack of internal piles. This gave him much uneasiness, and towards the end of June last he noticed much pain in the rectum of a lancinating character which was augmented on going to stool. It was at this time he noticed some difficulty in passing a stool. This difficulty of defecation increased, and latterly he found that he could alone relieve the bowel by using injections, the pain was such that he was obliged to take morphia to procure ease, and also suppositories of morphia were occasionally made use of.

On examination there was a large cancerous mass, within the sphincter, projecting from the left side, and completely filling the gut, the finger could not be passed except with difficulty, and this gave him much pain.

As there was every likelihood of the bowel becoming com-

pletely obstructed, and as the man's present condition was favorable the operation of colotomy was recommended for the purpose of affording relief. The operation was performed on the 8th of November, in the usual way, opening the bowel in the left loin.

There was great difficulty in finding the bowel in consequence, it was believed, of the extension of the disease to the sigmoid flexure, binding it down in its position. This was shown from the inability to draw the bowel out of the wound and bring it on a level with the surface, so that when it was attached to the skin there was a considerable strain on the ligatures, and they soon gave way, not, however, before free attachments had formed to the tissues in the vicinity. This gave rise to a certain amount of cellulitis, which was readily relieved by free drainage. The patient made a good recovery from the effects of the operation. There never was a bad symptom throughout. The temperature on the morning after the operation registered 99, at which it steadily remained for the first four days, after which it became normal in the morning, with a slight elevation at night; his pulse was never over 96, but more frequently it was in the neighbourhood of 76. Unfortunately, a bed-sore formed over the sacrum; this retarded the progress of the case, but before he was discharged from the hospital the bed-sore was healing and he had greatly improved in strength.

In the remarks made at the time of the operation, Dr. Fenwick said that the comfort afforded to patients in this lamentable condition by the operation of colotomy, was attested by all practical surgeons. He believed that in cancer of the rectum, colotomy should be performed at an early date; the pain and misery consequent on each evacuation was very distressing. The patient leads a life of misery; there is constant dread of going to stool owing to the burning pain which is experienced during the passage of the fæces over the ulcerated surface. This has to be relieved by morphia,—and, in the present case, the patient had for some time past taken as much as a grain and a half of morphia three or four times a day. This gives

only temporary relief, and the continued use of such large doses of morphia must interfere with the processes of assimilation and digestion. If, on the contrary, you afford an artificial outlet for the passage of the fæces, you give instant relief, so that the patient is placed in a more comfortable condition, and thereby life it prolonged.

Reviews and Notices of Books.

Contributions to Operative Surgery and Surgical Pathology.—By J. M. CARNOCHAN, M. D., formerly Professor of Surgery in the New York Medical College, with illustrations drawn from nature. Parts i. and ii.; 4to.; pp. 64. Part iii., pp. 38.—New York, Harper and Brothers, publishers, Franklin Square. 1877 and 1878; Dawson Brothers, St. James street, Montreal.

It appears from the preface that this work was commenced some years ago, and had reached the completion of the fourth number when fire destroyed the establishment of the printer, and plates, drawings and lithographs were lost. This explanation is rendered necessary, because the reader will find, after the dedication of the work to Samuel D. Gross, M. D., &c., of Philadelphia, an epistle, which by the way is without date, addressed by the author to Valentine Mott, M.D., LL.D., and which having been printed during the life-time of that Surgeon, is still retained by the author, from sentiments of great regard for his memory. The author then gives an introductory address on the study of science, which he delivered before his class, when he occupied the Chair of Surgery in the New York Medical College. The subject matter of the work then follows, and we have as a first paper, remarks on the treatment of Elephantiasis Arabum by ligature of the main arterial trunk, the branches of which are distributed to the hypertrophied tissue. This method of treatment has so fre-

quently been practised, and its results are so satisfactory and so well established, that the efficiency of such a curative method can no longer be doubted.

It is to the author that the Surgical world is indebted for this suggestion, a method which he carried out in practice with success as early as 1852. From that period up to 1858, the author had practised ligation of the main trunk of the artery in four cases with relief in all. The literature of this subject is given in a table of cases, 32 in all, with the following results: There were 16 cures, 12 relapses, 3 deaths, and one case in which amputation had to be practised. In this table, which embraces the records of cases in the practice of other surgeons, we observe an absence of all reference to a case of Elephantiasis of the leg, operated upon by ligation of the femoral artery by Dr. McCallum of this city, and which was the first case operated on after the publication of Dr. Carnochan's paper. The result as far as the elephantiasis goes was quite satisfactory. We have been promised the notes of this interesting case, and hope to publish it in our next. We have reason to believe that the particulars of the case were sent to Dr. Carnochan by Dr. McCallum.

The next paper is on ligation of the trunk of the common femoral artery in relation to secondary hæmorrhage following amputation of the thigh, and also in hæmorrhage from wounds of the plantar arteries and of the anterior and posterior tibials. This fasciculus is illustrated by two lithographs beautifully executed, one representing a case of Elephantiasis Arabum of the thigh. The second represents elephantiasis of the face and neck, in which the author ligatured both common carotid arteries at two operations, six months being allowed to elapse after the first operation. Figure 1 represents the appearance of the patient before operation, and figure 2 her condition eight years after the ligation of both carotids. These plates are highly finished and give an excellent idea of the wretched condition of the patients when they first consulted Dr. Carnochan.

Part III. forms the second fasciculus of these contributions. In this the author describes two cases of successful removal of

the entire lower jaw. In the first case the operation was undertaken for necrosis and caries of the jaw. The operation was performed at one sitting, and the author remarks that previous to the date of this operation, 13th July, 1851, he is not aware that the entire lower jaw had ever been removed with success.

In the second case the operation was completed at two different times. The patient, a woman, suffered from an osteofibroid tumour attacking the left side of the inferior maxilla, for which she was operated upon in 1861. The bone being divided opposite the first bicuspid, and disarticulated at the left condyle. A good and rapid recovery followed, but the disease returned, within six months, in the end of the bone at its sawn extremity. In May, 1864, this patient consulted Dr. Carnochan, and at that time he found that the entire body of the bone and the horizontal ramus presented a spherical tumour as large as two fists. This mass Dr. Carnochan subsequently removed, together with the remaining portion of the bone, disarticulating at the right condyle. The patient recovered and the motions of the tongue remained, general and special sensibility was unimpaired, and the voice, deglutition and speech were unaffected.

The next paper consists of general observations on Shock and Collapse and the primary treatment of injuries, with remarks on the time of election for capital operations after extensive lesions. This is a very interesting paper and the author goes fully into the etiology of these injuries, and also into the analysis of special symptoms following shock, physiologically considered. There are two excellently finished plates in this fasciculus, and we must, in justice to the author, commend his perseverance and determination of publishing these observations after the severe loss hinted at in the preface to this work. It is a work of special interest to all practical surgeons, and few there are who take any interest in this department of the healing art, that can afford to be without a copy. It is to be had of Dawson Brothers, St. James Street.

Public Hygiene in America.—Being the Centennial Discourse, delivered before the International Medical Congress, Philadelphia, September, 1876. By HENRY BOWDITCH, M. D., with extracts from correspondence from the various States, together with a digest of American Sanitary Law, by HENRY G. PICKERING, Esq. 8vo. pp. 498. Boston: Little, Brown & Company, 1877; Montreal: Dawson Bros., St. James Street.

This work is an elaboration of the Discourse on Public Hygiene, delivered by the author before the International Medical Congress, held in September, 1876, at Philadelphia. In an abridged form, it has already appeared in the transactions of that meeting. We are, however, very much indebted to the author for publishing this valuable treatise in its present shape. The address opens with remarks on the importance of the subject of Public Hygiene, and the author alludes to the fact that, in most countries, people seem to have awakened from their stolid indifference, only within a very few years "Hitherto, little or no attention has been paid to Hygiene. except when under the influence of some frightful epidemic, the panic stricken nations have been aroused from their usual apathy, and have then vainly tried to resist the pest by drugs, by appeals to the gods whose laws they have never studied, or perhaps, by legal enactments." This sad experience has opened a new field for research, and now is seen the endeavour to systematize the study of the causes of disease, with a view to its prevention, by the removal of those causes. This has developed a new department of the science of medicine, which, with the full concurrence and power of the State, the author designates "State Preventive Medicine." Thus is seen "the State," as a student of the causes of disease entering with heart and soul into the controversy, while the practice of medicine and surgery in the resistance of disease, by appropriate drugs, and other means, is left to the schools and to private practitioners.

Tracing the progress of this subject in his own country, the

author divides the past centennial period into three unequal epochs. The first, dating from the political revolution, extends to the year 1832, during which certain systems of medicine, dogmatically asserted, point to a belief in drugs, and the almost supreme power of our art, while the *vis medicatrix naturæ* was entirely ignored. The second epoch shows a more exact system of scientific observation of facts and their analysis, which led to a degree of scepticism of the value of the art, so haughtily vaunted previously, a disregard for drugs and a profound reverence for nature and her laws. The third and last epoch of our author had its origin in 1869, when the first State Board of Health was established. The author admits, with regret, that this awakening was due more to the exertions of the laity than to the profession, and specially mentions Samuel Shattuck, Esq., of Boston, who, as early as 1850, wrote a report of the Sanitary Commission of Massachusetts, in which he suggested the appointment of a State Board of Health. This, however, was not acted upon until nearly twenty years had come and gone.

Although the author fixes the commencement of the third epoch in his division at the year 1869, we must not suppose that sanitary science was entirely ignored up to this time, as he points to the fact that a National Sanitary Convention was held at Philadelphia in 1857, the following year the meeting took place in Baltimore; in 1859 the Convention met in New York, and again in Boston in 1860, when the war broke out, which put a stop to these proceedings. But more than this, during the war sanitary work was systematically carried on, and many, if not all, the Surgeons employed in the struggle, fully recognised the superior advantages of the prevention of disease over the cure of it. So that, although the commencement of the third epoch is dated by our author in 1869, when the first State Board of Health was constituted, yet that date was not the dawn of sanitation in the American Union. The author shows how wide-spread is the public interest in the questions of hygiene, but this state of public feeling is not confined to the United States of America, but is very general the world

over. Sanitary laws are more thoughtfully studied and sanitary measures are gradually being introduced into all the States and Territories of the Union, although, as our author remarks, there are some "not as yet sufficiently enlightened to appreciate the duties devolving upon them, to be careful of the health of their people." The author then gives the results of twenty specific questions which he addressed in the form of a circular to 263 medical men besides 21 other persons residing in 48 different states and territories, each having a separate government of its own. This circular was sent in every instance to representative men, and he received answers from 179 correspondents, their replies, in many instances were full in detail, but the large majority of them were meagre. The questions cover the ground of matters of interests in a sanitary point of view, but the answers lamentably display a lack of interest in these matters which are of such importance to the welfare of the people generally.

This proves the vital necessity of a different system to be adopted. Sanitary questions are of such importance to the entire country that they should be dealt with by the Federal power and not by the different States. Nor does it appear to us that any good will accrue by leaving this matter in the hands of the State governments. They should, in our opinion, supplement the action of the Central government, but sanitary laws of each State, to be effectual and beneficial, should emanate from the Central government, and be the same in New York as in Louisiana, in Maine and Florida, always permitting of certain special enactments to suit the different conditions of locality. Take, for instance, the question of registration of births, marriages and deaths. If a uniform system prevailed throughout the country, then indeed could valuable and reliable statistics be compiled. This question has earnestly engaged our attention in relation to our own Dominion, and we hold that it is a subject to be dealt with by the central government and not to be left to the local legislatures. It is not a municipal matter, but one on which hinges the very essence of all sanitary inquiry.

In the Appendices I, II and III, will be found the Circular which was addressed to the various correspondents and the answers, or rather extracts from correspondents' letters. Appendix IV. consists of a digest of American Sanitary Laws, passed by the several States and Territories from their admission into the Federal Union to the present time. This has been prepared, at the request of the author, by H. G. Pickering, Esq., Counsellor-at-Law.

This treatise is a valuable and important addition to the literature of the subject, and, as a work of reference, will be freely consulted, as there is to be found in its pages matter which will be vainly sought for elsewhere. It is a strong protest against apathy and neglect, and gives an unvarnished account of the State of Sanitary Affairs in the American Union. It is to be had of Dawson Brothers, St. James street.

Hospitals—their history, organization and construction.—Boylston Prize-essay of Harvard University for 1876. By W. GILL WYLIE, M. D. "An ounce of Prevention is worth a pound of Cure." 8vo. pp. 240. New York: D. Appleton and Company, 549 and 551 Broadway, 1877.

This is the Boylston Prize-essay of Harvard University for the year 1867. The work consists of eleven chapters, beginning with the origin and development of Hospitals, and continues on in the second chapter to the consideration of the relations between hospitals and pauperism. Tracing the history of the origin of Hospitals, the author gives some interesting details, proving that hospitals are not an outgrowth of the introduction of Christianity. It may be believed that the Phœnicians, Greeks and Egyptians possessed or constructed hospitals for the relief of the sick and distressed. The ancient Egyptians had regular medical officers paid by the state, and according to M. Chabas, there existed a College of Physicians amongst them in the eleventh century before the Christian era. These officers were paid out of the public purse and the law regulated the nature and extent of their services.

The divine art, as it was termed, was regarded as a gift of the gods, and was apparently alone practised by the priests, for on the walls of the temples of Egypt and Greece were seen suspended tablets describing the cures that were effected by the priests, together with recipes and invocations to certain of the gods for certain ailments. From these tablets can be traced a strange mixture of rational medical treatment, and the employment of charms and incantations. Here also can be traced the dawn of scepticism in the efficacy of charms and prayers, leading to the waning power of the priest, and increasing faith and dependence in the skill of the physician.

In Egypt the science of medicine attained a high degree of perfection; there were specialists amongst them, each practising his own branch. In the medical papyrus at Berlin can be found a treatise on inflammation. This is a copy of a more ancient record, and dates back almost to the time of Moses. The Egyptians boasted of Oculists and Dentists. Mummies have been found at Thebes with their teeth plugged with gold, and there are to be found papyri devoted to diseases of the eye; and also to mental diseases. It is very doubtful whether the temples were not in verity a species of hospital and we have evidence of it in Sacred Writ that in the time of the blessed Saviour the sick were brought unto him in the temple and synagogues, and he healed them. That hospitals existed in India several centuries before Christ is evidenced by inscriptions cut on the rocks which still remain, and also by an edict promulgated by King Asoka in the fourth century B.C., commanding the establishment of hospitals throughout his dominions.

On this continent there is evidence that hospitals existed amongst the Mexicans and Aztecs, which points forcibly to the Phœnician origin of those people. The hospitals established by the Mexicans were for the care and nurture of wounded soldiers.

Public dispensaries existed at Athens several centuries before the Christian era. The sick poor resorted to these dispensaries to be treated by the slave doctors, who received

their pay from the State; and the poet Crates, about the fifth century B.C., speaks of a hospital which was, it is supposed, situated in the Piræus. We must believe that the establishment of hospitals has not been confined to any one age, nor have they originated in any one nation, but are the natural result of that repugnance to witness suffering, and that tender compassion found in the hearts of most men, and which induced the Samaritan to bind up the wounds of the Jew, to set him on his own beast, to take him to an inn, and pay the good man of the house for his care and sustenance.

In Ireland, according to the annals of Clonmacnoise, a plague broke out among the people of Parthalon. These congregated on a plain at or near the mouth of the Liffey, and there some nine thousand men and women died of the plague in one week. These people had come there to be treated and cared for, also to sun themselves. This occurred, according to the annals of the Four Masters, about A.M. 2900. But there is further evidence of the use of a house near the palace of Emania which was erected 300 years B.C., during the time of the heroes of the Crimson Branch, an establishment similar to the Asclepia of Grecian history. This house was called Broinhberg, or "house of sorrow," and was in verity a hospital in which sick and wounded soldiers were cared for.

In discussing the relations of hospitals to pauperism, the author points to the danger of giving relief where it is not actually needed, thereby creating a sense of dependence where none should exist—leading to improvidence; and he remarks: "When a king was the State, he could give to the poor, and receive love and loyalty in return; but now, the people, the voters, the paupers themselves, are a large part of the State, and paupers take their alms from the State as a *right*." We can only remark that such a condition of affairs ought not to exist,—nor do we believe even in the author's own country, where universal suffrage is found, that it does exist.

In Chapter III. the author passes on to the subject of Organization and Management. In this chapter he touches upon the value to the physician or surgeon of hospital appointments;

he also pays a high tribute to the humanizing influenec of women attendants. Although he admits that men can perform all the offices of supervising, house-keeping, nursing, &c., yet he remarks that "an institution so governed will be wanting in one of the most desirable and essential particulars, namely, that gentle and refining moral influence which is seldom found outside of the house kept in order by a woman."

In Chapter IV. the author discusses the subject of the Construction of Civil Hospitals,—and, in point of location, he prefers to see such institutions in spacious grounds, beyond the limits of a city, though he fully recognises the many objections offered to such a location, specially in large cities. With regard to the construction of buildings, he concludes that "for the treatment of all classes of patients, it is desirable to have every ward in a separate one-storied pavilion." The author next considers the number of beds in each ward consistent with economy for nursing, and also gives the cubic air space which should be allowed to each patient.—"About eighteen hundred cubic feet of air space with a surface area of 124 square feet has been adopted as the space required," this is for medical wards, and for surgical wards, the allowance should be, according to our author, 2160 cubic feet and 3600 or double the cubic area in wards for dangerous cases.

Chapter V. is on warming and ventilation, and many practical hints are to be gathered from this chapter. There is a chapter on pay patients and also one on isolated huts to be used in certain important operations, as in cases where Ovariotomy is undertaken. There is a chapter on the improvement of hospitals now in use, and the last chapter gives a general view of the various plans of hospital buildings at present in use. This little book is well worth perusal. It contains a large amount of interesting and instructive material and should be in the hands of all persons interested in the erection and construction as well as the management of these institutions. It can be had of Dawson Brothers, St. James street.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Cases of Antiseptic Surgery.—Mr. Lister dressed a case in which he operated five days previously for the removal of a large tumour of the thyroid gland. A large portion of the tumour passed backwards between the trachea and œsophagus, and had to be removed by scooping it out from its capsule. It being found impossible to arrest the hemorrhage by ordinary means, the cavity was stuffed with boracic lint previously steeped in carbolic lotion. Mr. Lister stated that two days after the operation, the wound became putrid, with some feverishness and constitutional disturbance; and he explained this as being probably due to the boracic lint with which the wound had been stuffed. From former experiments, he has proved that boracic acid is not fatal to all forms of organisms; and it appears possible that, in preparing the lint, some septic particles may have become entangled in the boracic crystals, and, not being destroyed by them, had thus escaped the action of the carbolic acid. The wound is, therefore, no longer dressed under the spray, but simple boracic lint dressing is used.

In another case, of incision of the thyroid, the operation was performed three weeks ago. Here an unilateral tumour had been removed, which also passed between the trachea and œsophagus. There has been no suppurative or inflammatory disturbance; the wound is now healed, and the patient is going about the ward.

A New Operation for Fracture of the Patella.—In a case of transverse fracture of the patella, Mr. Lister cut down on the fragments, opening the knee-joint, cleansed the surfaces of the fragments, and, having established an independent drain of horsehair for the knee-joint, drilled the two portions of the patella and tied the fragments together with silver wire, and then closed the wound, which was also drained with horsehair.

This operation was performed six weeks ago; the wound, as exposed to-day, was seen to be completely healed. the ends of the silver wire projecting through the scar. The highest temperature that had occurred was 100° Fahr. on the morning after the operation. There has been no disturbance, constitutional or local, and both the wounds healed in about a fortnight.

The limb will be kept at rest for another fortnight, when, if union has taken place, the wires will be withdrawn.

Removal of Tumour from the Larynx.—The patient was admitted suffering from a tumour of the size of a hazel-nut, apparently attached to the anterior part of the vocal cords.

A fortnight ago, Mr. Lister operated, dividing the cricoid cartilage and upper three rings of the trachea, and was thus enabled to see clearly the vocal cords from below, and found that they were both affected from end to end. After putting a tightly fitting tube into the trachea, to arrest hemorrhage and enable the patient to breathe, he divided the thyroid cartilage in the median line, and clipped away the vocal cords, both true and false.

The wound is now for the most part healed, except at its lowest part, where a small communication with the trachea still exists; when this opening was closed, the man was able to cough and speak with a distinct but gruff voice.—*British Medical Journal, December 15th.*

Malposition of Testis.—By A. W. Stocks, M.R.C.S. Eng., Salford.—This interesting case is brought forward rather on account of its rarity than for its being of any great or special practical value. The subject of the peculiarity is a young man aged 24, a policeman, the father of three children. He always fancied that he had only one testicle, and it was only some months ago, when he received an injury to the abdomen in the execution of his duty, and became troubled with symptoms of hernia, that the true nature of his condition was discovered.

The left testicle, which is fully developed, occupies the whole of the normal scrotum, the raphè being placed exactly in the

middle line of the testicle, as if it were the natural condition that it (the scrotum) should be occupied by a single testicle only, whereas the raphè usually occupies a position midway between the two testicles. The right testicle, which is only partially developed, occupies (as is shown in the photographs which I have the honour to pass around) a pouch or additional scrotum, separate and distinct from the scrotum proper, situated between the scrotum and the right thigh, and lies upon the descending ramus of the right pubis. The right spermatic cord leaves the abdomen by the usual route through the external abdominal ring, and can be traced down to the abortive gland. A hernia, at the time of the injury above referred to, was protruded from the abdomen and followed the course of the misplaced spermatic cord. This is completely relieved by the application of a truss.

Four cases of irregularity in the progress of the testicle have lately come under my observation.

In the *first*, no testicle ever descended into the scrotum of a youth, aged 19, who died of a large lympho-sarcomatous tumour in the abdomen. Both testicles, which were only partially developed, were found after death resting on the brim of the true pelvis near the bifurcation of the common iliac artery. In this case both inguinal canals were pervious throughout the whole course.

In the *second* and *third* cases, the testicles, one on the right and one on the left side, were retained within the abdomen, and in both instances a hernia had descended through the patent canal.

The *fourth* case is the one before us.

It would appear, from a consideration of these abnormalities, that the changes which occur during the development of the body have a distinct relation to, and a mutual dependence upon, each other, even where there seems to be little, if any, connection, vascular or otherwise, in the parts implicated in those processes. Thus, in the second and third instances mentioned, the closure of the inguinal canals seems to have been interfered with by the non-transmission of the testes through them.

In the present case, the remarkable irregularity in the course which the testis took in its endeavour to reach its proper destination seems to have depended upon the arrest in the development of the testis itself, and, in the other instances, the patency of both inguinal canals does not seem to have a more rational explanation than that it depended upon the non-descent of the testicles into the scrotum, and their retention in the abdomen was influenced by the non-development of the glands themselves. —*British Medical Journal.*

Paracentesis.—Importance of Preserving a Vacuum in the Pleural Cavity.—ROBERT J. LEE, M. D., F. R. C. P., in the *British Medical Journal* of Dec. 8, remarks on this subject.—There is one important principle on which, it will be allowed, the successful treatment of empyema and hydrothorax depends in those cases which have required the insertion of the drainage-tube, or where any other plan for preserving an opening into the pleural cavity has been adopted. If we consider the effect of making an opening by which air is admitted into the pleural cavity, we perceive that the expansion of the lung is more or less diminished so long as this opening remains patent. We also perceive that, if the opening be of such dimensions that the air which passes into the pleural cavity is greater in volume than that which passes into the lung in inspiration, there is practically no expansion of the lung and its functions are destroyed. It is evident that, in order to obtain perfect expansion of the healthy lung, there must be no communication between the pleural cavity and the external atmosphere, for the effect produced even by a small opening is very considerable. If we wished to ascertain with accuracy the extent to which the expansion of the lung would be diminished by inserting a tube into the pleural cavity, we should have to consider two important points, in addition to those which would enter into the question if the pleural cavities were independent of one another, and the minute air-tubes were non-elastic. By admitting air into one pleural cavity, we disturb the equilibrium which exists between them when both are closed. We also

liberate the force which the tissue of the lung possesses, in virtue of its elastic character, on the side from which atmospheric pressure is removed.

Supposing that the tube which is inserted be very small, in comparison with the aperture of the glotis, the elasticity of the lung will produce such diminution in its volume as to admit a certain quantity of air into the pleural cavity, which must remain, unaffected by the movements of respiration. The resistance offered by a very small tube would be such as to produce but little effect, compared with that which would be produced by a tube of such diameter as that usually employed in cases of paracentesis of the thorax.

When we observe that the tube used for laryngotomy is of sufficient diameter to admit the air necessary for ordinary respiration, it is evident that the drainage-tube will allow such an amount of air to pass through it as almost, if not quite, to annul the forces exerted on the lung by the various muscles of respiration. These considerations enable us to perceive how important it must be to bring the force of atmospheric pressure to bear upon the lung, when it has been compressed by pleural fluid; and we discover the objections which present themselves to the method of treatment of empyema by the insertion of the drainage-tube. We also perceive what may be urged against the method of treatment with the aspirator, the most important of which is the too brief duration of the force exerted upon the pulmonary tissue. We see what advantages belong to both methods of treatment, and some plan, combining a permanent opening for the escape of fluid with the power exerted by the aspirator, suggests itself as reasonable and consistent, and for such a plan I propose the term "continuous aspiration."

The apparatus constructed for this purpose consists of two parts, one of which is attached to the thorax, so as to cover the orifice of the drainage-tube; the second being connected with the first, and used for the purposes of exhaustion. The former may be made of Ivory or India-rubber, in the form of a small hemis-pherical cup, with a broad grooved margin or phlange to obtain adhesion. The second part is a double-valved ball of

caoutchouc, of considerable thickness and elasticity, by which the cup may be exhausted and fluid removed.

The amount of atmospheric pressure which may be brought to bear upon the condensed lung will depend upon the expansile power of the exhauster. In the earlier experiments which were made, one of the self-acting elastic cups used for cupping was employed. Subsequently, an exhausting syringe was attached to it; and finally, the arrangement constructed by Mr. Banks for Messrs. Maw, Son, and Thompson.

A suggestion of my friend Mr. Napier, te employ the respiratory movements of the lowest part of the thorax as an exhausting power, I hope, will prove successful. In the apparatus which is exhibited by Messrs. Maw & Co., the ball-exhauster is intended to be worked by hand-pressure.

It is almost unnecessary to point out that the pathological condition of the lung must determine the amount of pressure which may be exerted. Practically it will be found that the exhaustion of the pleural cavity may be carried much further than would be supposed possible without producing any sense of tension or discomfort, and, provided that the surface of the thorax is unaffected by the pressure of the cup, the apparatus can be worn without difficulty or constraint.

There are other uses to which this apparatus may be applied, in conjunction with the single drainage-tube: such as large abscesses of the abdomen, etc. I have omitted any reference to the various pathological conditions which are met with in empyema, and have avoided any depreciatory remarks on the ordinary surgical treatment of the disease. A careful consideration of several *post mortem* examinations, and the satisfactory results obtained in the cases of children in which I have used this method of treatment, leads me to introduce it at a meetiug of the Association when the subject of paracentesis is to be especially discussed.

Aneurism of the Aorta, Innominate, Subclavian and Carotid Arteries treated by Double Distal Ligature.—On the 13th of November the members of the Royal Medical and Chirurgical Society were much interested in a paper read by Mr. Barwell upon a case of aortic and innominate aneurism successfully treated by ligature of the subclavian and carotid arteries. The patient, who was shown to the society, was a man, æt. 45, and was admitted into Charing Cross Hospital, under the care of Dr. Pollock, July 24, 1877, with a large aneurism at the right root of the neck. He had been engaged in very laborious work at a foundry. Family history good, and no history of syphilis. In November he was seized with vomiting and purging after a drinking bout, followed by rheumatoid pains, which continued in right arm. The swelling first appeared in March, 1877, with weakness and occasional numbness of the right arm. The tumour was oval just above the right clavicle, extended from beneath the inner margin of the left nearly to the outer margin of the right sterno-mastoid, and upward to the lower margin of the thyroid cartilage. It projected considerably, and its strong pulsation was charicteristically expansive. There was dulness from the inner third of the clavicle over the first intercostal and second rib, and this mingled with the cardiac dulness. Pulsation was felt on this space: the heart was displaced to the left and a little downwards; and the veins of the right side of the neck and chest, and of the arm, were greatly distended. No bruit at the heart or over the tumour, and no difference between radial pulses. Dr. Pollock treated the case with rest, low diet, digitalis, and ice-bags to the tumour, but the aneurism increased. On deligation being proposed the patient left the hospital, but returned on the 13th of August and wished to have it performed. By this time the tumour had increased so much as to measure horizontally over limits of pulsation four and a half inches by compass aad six by tape; and it extended above the middle of the thyroid cartilage, measuring in that direction over three inches. The breathing and circulation were much embarrassed, and there was a slight

cough. On the 14th, the operation was performed, first on the carotid. A very large superior thyroid, simulating prolongation of the sac upwards, necessitated great caution, and there was only room enough to pass a ligature round the common carotid between the aneurism and the bifurcation. The subclavian artery was then reached, and a ligature was passed round it. In disengaging the catgut, a vein above the brachial plexus was ruptured, and the filling up of the wound with blood made its ligation difficult and doubtful. Without waiting, therefore, to verify the isolation of the artery, Mr. Barwell knotted the catgut loosely, stuffed the wound firmly with antiseptic gauze, and had the patient carried to bed, the radial pulse still beating. The next day the gauze was removed, the loose ligature (which was found to include a nerve of the plexus) was left in its place, and a fresh one passed and tied. Both these operations were performed antiseptically. Low (milk) diet was ordered.—15th. Breathing and circulation much relieved; temperature normal.—23rd. Cervical tumour harder and smaller, and thoracic pulsation barely perceptible.—25th. Ordered a dry diet.—28th. Patient suffers from thirst; pulse 102; temperature irregular, radial pulsation disappeared; tumour little larger.—Sept. 3rd. More nutritious diet, with one pint of beer daily. —5th. Temperature and pulse high and irregular; tumour harder and not so large as on last measurement. On the 8th, 9th, and 10th the size of the tumour gradually diminished. On the 9th, temperature 96°, and afterwards continued normal.—Oct. 21st. Patient has gone on well since the tumour began to rapidly diminish, and now a firm solid tumour, about the size of a cob-nut, lies behind the sterno-clavicular joint, with pulsations continued from the aorta. No thoracic pulsation, and the whole aneurism is consolidated. Mr. Barwell remarked that the aneurism doubtless involved the aorta innominate subclavian, and carotid, and was not far from bursting. The operation gave immediate relief, and evidently the system of diet had contributed to the successful result. The whole of the subclavian is obliterated, and no radial pulse remains. That aneurism of the innominate artery may be

cured by double distal ligature has not yet been proved, as out of the six operations that have been performed two were soon fatal, and two were fatal in a few weeks. Dr. Silver testified to the great improvement effected by the operations. He was, however, doubtful, whether the carotid was implicated or not. Judging from the *post-mortem* appearance of a case that came under his own observation some years ago. he thought that the chief part of the swelling was dilatation of the innominate. Nor did he think a complete cure had as yet been effected, although probably the little pulsation and swelling which remained would disappear in time. Mr. John Wood congratulated Mr. Barwell on the successful issue of his ease, and confirmed his statement with regard to the advantage of a non-liquid diet in such cases. He, like Dr. Silver, was not quite sure the aneurism was completely cured. With regard to the use of the catgut ligature, he thought that under the circumstances the ordinary ligature would have done as well. Dr. Barclay also spoke in favour of the dry diet, but said that unfortunately it was not every patient who would submit to the treatment. Dr. Douglas Powell agreed with Dr. Barclay as to the temperament of the patient being a main element in curing those cases by rest and diet. He asked Mr. Brrwell whether any sphygmographic tracings had been taken; and whether the aneurism caused any pressure symptoms. Mr. Barwell, in reply, said that as the patient had previously undergone medical treatment without much relief, he did not think that anything short of surgical interference would have saved the man's life. The height to which the tumour extended in the neck pointed, in his opinion, to the carotid being involved. The swelling that remained was no larger than might be expected from the complete coagulation of the aneurismal contents; and the great diminution in its size could only be accounted for on the view of its complete consolidation. Of course, rupture might hereafter take place from further extension of the aneurism, as in Mr. Heath's case (which was aortic only), and in which four years elapsed between the date of operation and death. No nervous symptoms of any account followed the ope-

ration. No sphygmographic tracings were taken. The rapidity with which the wound healed, aud the secondary hæmorrhage were strong points in favour of the catgut ligature.—*The Doctor.*

A Clinical Lecture on Colotomy. — Delivered in University College Hospital, London..—By CHRISTOPHER HEATH, F.R.C.S., Holme Professor of Clinical Surgery. GENTLEMEN,—During the last year, you have seen in the wards several cases of disease of the rectum, in more than one of which I have performed colotomy. We again have a similar case, on which I intend to operate on Wednesday; and, therefore, I thought this a suitable opportunity for making some remarks on the operation.

Many of you, no doubt, will remember the case of the man M., who was in the hospital towards the end of last year. He was a man fifty-eight years of age, of blanched cachectic appearance, who had suffered severely for some time from cancerous ulceration of the rectum; and, shortly before he was admitted, fæces had found their way into the bladder. On admission, we found him suffering great pain, with fæces in the bladder and blocking up the urethra; and, if this state of affairs had been allowed to continue, no doubt the fæces would have formed the nucleus of a vesical calculus. The patient was admitted on December 27th, and on the 29th colotomy was performed in the left lumbar region. Immediately afterwards, the fæces ceased to pass into the bladder, and were all passed by the opening in the loin. The patient convalesced slowly, but fairly, and left the hospital in the following February. When first the operation was performed, he was troubled for a time by urine finding its way into the rectum. He was, therefore, placed on a Hooper's bed, so that the urine might gravitate into an utensil beneath. On calling at his lodging to day, on my way to the hospital, I found that lately the urine had begun to escape by the artificial anus; and, when I passed my finger into the rectum, I found it more obstructed than on the last examination. It is probable that the cancerous mass there has

increased and blocked the anus, so that the urine regurgitates through the rectum, and so out at the wound; in fact, the rectum and bladder in this case are one common cloaca. By diverting the fæces from the rectum, we relieved the man of the suffering caused by the obstruction, which, at his time of life, would soon have proved fatal. At best, he cannot live many months; but he will at all events, end his days in peace.

The woman now upstairs was admitted last weak, with nearly complete obstruction of the great bowel. She is extremely emaciated, having nearly starved herself to death; the pain she suffers from the obstruction being so great that for some time past she has taken next to no food. This is not a case of cancer, but of constriction due to ulceration, probably syphilitic. She is married, and her history is that, ten years ago, she began to be troubled with habitual constipation and pain at defæcation. She noticed that her stools were very small in calibre, and was told she had stricture. There is no family history of cancer. She has had two children since the stricture existed. She has had no miscarriage. Thus, you see, the history is obscure, but at all events not cancerous, and there is no reason why her life should not be prolonged in comfort by the operation.

Of other cases of colotomy you have seen, one was that of a woman who was operated on last year, and who had a great mass projecting in her rectum, evidently cancerous. The only thing remarkable about this case was its unfortunate termination soon after the operation, which was on July the 5th. On the following day, symptoms of peritonitis set in and the patient died on the 8th. The operation was easily performed, and there was no unusual pulling about of the intestine. No *post mortem* examination was held, but I am certain that the peritoneum was uninjured in the operation.

Putting together the different cases in which I have undertaken the operation, I find that, out of twenty-two cases, eight proved fatal and the rest lived variable lengths of time, the operation not being the immediate cause of death. This is a good average, considering that the nature of the cases were so bad especially those of obstructiona. The other cases were for

ordinary cancer without obstruction, and for communication between bladder and rectum. One case was that of a lady with pelvic abscess after a confinement. The abscess seemed to have opened up a communication between the bladder and rectum, so that fæces entered the bladder, blocking the urethra, and rendering the patent's life miserable. I performed colotomy in the left loin in 1872, and she is now quite well. She has little inconvenience, passing her motions by the opening in her side, and no one about her having the slightest idea that anything is wrong.

The bulk of the operations are preformed for cancer, with more or less obstruction. If there be no present obstruction, then you do it for the impending obstruction or for the painful ulceration. Nothing is more painful than this ulceration of the rectum. The patient lives a life of agony, continually suffering from a hot, burning pain. Morphia may be given, but it affords no permanent relief; and the patient dies, either out of health from constant use of the drug, or from exhaustion. If you divert the fæces from passing through the rectum, you at once relieve the patient's suffering, and undoubtedly prolong life, one of my cancer cases living two years and nine months after the operation.

Of syphilitic ulceration of the rectum, Mrs. K., whom you may have seen in the ward occasionally, affords a good example. In her case, the syphlitic ulceration is not primary, for that form is rarely met with, but tertiary; and tertiery ulceration of the rectum is much more common in women then in men, in the proportion of five or six to one. In them the disease seems to bear some relation to the vagina, as if the poison infiltrated through its wall into the rectum. First, there is painfull ulceration, and, after that is well, it is followed by inveterate stricture of the bowel. Thus Mrs. K, had ulceration, with more or less stricture; and everything had been done, but nothing would cure the ulceration. I therefore performed colotomy, and it was followed immediately by great relief. But her's is a peculiar case, part of the fæcal matter still passing by the anus. Being anxious to know if this really were the case, I took her

into the ward for a few days, to be closely watched by the nurses, and they confirmed her statement, It is difficult at first sight to understand how this occurs, the two openings being so completely apart; but I have noticed the same thing in one or two cancerous cases, and this is, in fact, the only drawback to the operation, and fortunately it is by no means constant.

The cases of stricture are the most formidable when the disease gives rise to complete obstruction. Now, obstruction may be acute or chronic. Acute is caused by some twist or band in the small intestine; but it is in chronic obstruction that colotomy is called for, because it is most frequently due to cancer of the sigmoid flexure. It is important, when called in to a case of this kind, to diagnose the state of affairs at once and the great thing is to ascertain if there has been a graduall, increasing difficulty of defæcation. That is sometimes not easily made out, especially in women; but, if you question closely, you will generally find that there really has been gradually increasing difficulty. Do not think that fæces "like tobacco-pipe" are absolutely necessary evidence of the state of the bowel. A very frequent condition is that of constant diarrhœa, in which small lumpy motions, with more or less liquid, are passed; therefore, the calibre of the motion affords no certain indication of stricture. From what I have said, you will have perceived that, in cases of chronic obstruction, the disease is most likely to be situated about the rectum; and it is often possible for you to feel it on examination with the finger and in females you have the advantage of examining by the vagina. I find that, by using the fore and middle fingers, I can reach higher up the bowel than with the fore-finger alone, for then the middle finger is apt to be in the way. With two fingers, also, you can sometimes draw down the mucous membrane, and so reach a little higher. Still, the evidence thus obtained is often negative. Then the next best method is to pass a tube up into the bowel. A tube such as is attached to a stomach-pump is the most useful; but it is dangerous if not carefully used, for you may do harm by pushing it through a softened part of the bowel. If it be oiled previously, it may

pass up readily enough ; but when the finger is introduced by the side of it, yon may find the end of it bent down. Thus, in a case of stricture, although you may apparently succeed in your examination, still you do not pass the obstruction. The the best plan is to introduce the tube filled with warm-water ; then distend the bowel slightly by injecting a little, at the same time pushing the tube a little further. By repeating the manœuvre again and again, you may either reach the obstruction or introduce the tube for its entire length. Generally speaking, you meet with obstruction at the sigmoid flexure, which prevents you going any further. Then, having made your diagnosis, the road is clear. But sometimes, on the other hand, you may push the tube up for its whole length and find no obstruction. Then, if you cannot obtain any evidence of the locality of the obstruction, you may perform the operation on the right side.

On one occasion lately, I performed the operation on the right side. It was in the case of an old lady with symptoms of obstruction of three weeks' standing. All the tube had entered the bowel, and no guide to the position of the disease had been discovered. As I said before, I performed the operation on the right side, and the patient survived for six weeks, and died mainly, I believe, from a bed sore. In that case, I met with a peculiar condition which I do not think is mentioned in any of the books, and which I have only seen on two occasions ; I mean the presence of gas in the peritoneal cavity. On cutting down upon the bowel, I found the peritoneum considerably distended; but, there being good sunlight at the time, I was able to avoid opening the cavity, and the gas soon disappeared, and did not influence the patient's recovery in the least. I noticed something similar to this in a case in the hospital in 1874. There, again, the peritoneum was enormously distended, so much so that it was impossible to operate without pricking it, and the case terminated fatally from peritonitis. The explanation of this condition, no doubt, is that the bowel above the obstruction having been distended for some days, a certain amount of gas transudes into the peritoneal cavity. The prac-

tical bearing of it is, that you are liable to mistake the distended peritoneum for distended intestine.

And now as regards the operation itself. It is performed by preference on the left side, or on the right side under exceptional circumstances. The patient is placed on the right side, with a pillow under the loin, in order that the left loin may be thrown into greater prominence. You then measure a point midway between the anterior and posterior superior spines of the ilium, and from that point draw a vertical line upwards to the last rib. This line will give you the position of the bowel. Then make an incision four inches long, somewhat obliquely between the crest of the ilium and the last rib, half of the incision being on each side of the vertical line marked out. There is some difference of opinion as to the precise direction of the incision, some preferring it horizontal, others oblique. I myself prefer it slightly oblique, running paralled to the last rib. In making the incision, you divide the skin, subcutaneous fat, the external oblique and latissimus dorsi muscles, thus exposing the internal oblique. Having divided that for the whole length of the wound, the fascia lumborum comes into view, and you carefully divide it on a director. You have now exposed the loose fat about the kidney and colon in the anterior part of the wound, and the edge of the quadratus lumborum behind. Keeping the edges of the wound open with spatulæ, you displace the fat with the finger and seek for the bowel. In cases of obstruction with distension, you have no trouble in doing this, the bowel presenting at the wound covered only by fascia transversalis. This fascia varies in thickness in different cases, and has sometimes been mistaken for peritoneum. But, if the bowel be empty, you tear through the fascia transversalis carefully with the finger-nail just in front of the quadratus lumborum, and, on introducing the forefinger, you will generally succeed in hooking the intestine. If you do not succeed in doing this, by turning the patient over on to his back the bowel will, in all probability, fall on your finger. Bringing the bowel into the wound, you roll it round and expose the posterior surface which, as you know, is generally uncovered by peri-

toneum, and, when the bowel is distended, this surface is much larger. With a large curved needle, you then pass a stout silk thread through the skin to one side of the ink-mark, across the bowel, and again through the skin at a corresponding point on the other side of the mark, repeating the proceeding at the other end of the incision. Thus the colon is held to the margins of the wound before being opened. A transverse incision is now made into the bowel between the threads, and, the finger being introduced, the two loops can be drawn out, and, on dividing them, you have four threads to fix the bowel to the wound only requiring to be tied. The rest of the incision on each side of the bowel is then closed by ordinary sutures, and the operation is completed. The complications are very small. The greatest difficulty is in reaching the bowel when it is empty, but, with a little experience, this becomes quite easy.

Last week, with Mr. Erichsen, I saw an interesting case of total obstruction in a gentleman who had been treated homœopathically for three weeks. The small intestine was distended to three times its normal size, and there was a clear history of obstruction of the large bowel. We decided on colotomy, and I performed it as usual in the left loin. After I had finished the operation, on putting my finger into the lower opening in the bowel, I found a mass of disease, evidently cancerous, at the upper part of the sigmoid flexure; for I may say that it is not really the sigmoid flexure that is opened in colotomy, but the junction of the transverse with the descending colon; since, on putting your finger into the upper opening, you find that it goes horizontally in front of the kidney. This patient survived the operation seven months.

These being the principal points concerning the operation, you will watch the one on Wednesday with greater interest.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1878.

"L'UNION MEDICALE DU CANADA."

Our attention has been called to an article in the September number of *L'Union Medicale du Canada*, commenting upon that which appeared in our August number on the subject of the Triennial Meeting at Three Rivers in July last. We regret much that we had not carefully perused that article earlier, as from it we learn for the first time, that our French-Canadian brethren felt aggrieved at the tone of our article, and were disposed to regard it as offensive towards them. Nothing could be further from our thoughts.

We should be very sorry to say one word which could be considered offensive to gentlemen, with a large number of whom we have had the most agreeable professional relationships.

Our condemnation was addressed only to the small number—those who are described by our respected contemporary as "*d'un très petit nombre des nôtres;*" and we offer to our French-Canadian friends our most sincere regrets that our article should have been open to the interpretation which they have put upon it.

Had we been aware of this feeling, the expression of our regrets would have come earlier. Our condemnation of the policy of those who would raise these distinctions of race, applied equally to the English as to the French-speaking members of the profession—for among the former, as among the latter, are some to be found who allow their feelings at times to outrun their judgment.

It has ever been our desire to smooth the troubled waters of national strife, and to make the profession, in fact what it is in

name, a liberal profession, where men of all nationalities and creeds can work harmoniously together for the promotion of the science of medicine. As in the past, so in the future, this will be our object,—and we trust our French-Canadian friends will accept the assurance in the same spirit of sincerity in which it is offered.

LACTIC FERMENTATION, ITS BEARINGS ON PATHOLOGY.

A most interesting paper on the subject of lactic fermentation and its bearings on Pathology, was read before the Pathological Society of London, by Mr. Lister, on Thursday the 18th December ult. This was accompanied by experiments, and an exhibition of apparatus used by Mr. Lister in carrying out his researches. In speaking of bacteriæ, he remarked that it was very probable they did not require any germ, they were in themselves reproductive organisms. In thanking Mr. Lister, the President remarked that it was customary for members, on their admission to sister societies, to deposit with the society some specimen of their art. In joining this society Mr. Lister had given them a specimen of his experimental skill and deep scientific acquirements, which would be deposited in the annals of the Pathological Society of London.

McGILL MEDICAL SOCIETY.

This association which began its existence on the 23rd of April, 1877, is now in a most prosperous condition. Its membership is extensive, and its meetings have proved useful and interesting to all frequenting them.

The first meeting of the winter session took place on the 13th of October, and since then the following readings and papers have been given.

Oct. 13th, Mr. GURD read a selection entitled "Nature's Gentleman."

Mr. MILLS presented a paper on "The relations of the Medical Practitioner to the Public, and of Medical Students to each other."

Resolutions of sympathy with the family of the late Dr Cline were passed at this meeting.

Oct. 27th.—Mr. SUTHERLAND gave a selection from Oliver Wendel Holmes.

Dr. RICHARD MCDONELL then exhibited an interesting pathological specimen of aneurism of the descending thoracic aorta, causing caries of the bodies of the vertebræ.

Mr. CHISHOLM read a report of a case of Tubercular Nephritis, observed in the Montreal General Hospital.

Nov. 10th.—A reading from "Pickwick" was given by Mr. MCLAREN, and the election of officers followed. Dr. Osler was re-elected President by acclamation; Mr. Mills, First Vice-President; Mr. Sutherland, Second Vice-President; Mr. Vineberg, Treasurer; Mr. Mignault, Secretary; Mr. T. Gray, Librarian; Messrs. Guerin, T. L. Brown, and Chisholm, Councillors.

Nov. 24th.—Mr. HENDERSON opened the programme with a selection from Shakespeare.

Dr. OSLER then exhibited the following:—

1. A case of patency of foramen ovale.
2. Aneurism of abdominal aorta.
3. Chronic meningeal tubercle.
4. Specimen of lung in a case of pneumonia.
5. Specimen of lung in a ease of empyema.

The same gentleman then favoured the association with a paper on "The influence of position for hearing heart murmurs."

Mr. Mills then followed with a communication upon the powers of articulation displayed by a patient after excision of the tongue.

Dec. 8th.—This evening had been allotted to a debate upon a general subject, so, after a reading from Mr. ROGERS entitled "Edinburgh after Flodden," a discussion took place upon the question, "Whether Science, or Literature or the Fine Arts

have done most towards the advancement of mankind." On the affirmative were Messrs. Mills, Chisholm, and O'Callaghan. Negative—Messrs. Mignault, Guerin, and Henderson.

Dec. 15th.—This was the last meeting before the Christmas holidays, and Mr. R. T. E. McDONALD was the reader of the evening, and gave a selection from "Hurdy Gurdy."

Mr. T. GRAY followed with a paper on "Albuminuria in pregnancy," and with the report of a case of "Glosso-labial pharyngeal paralysis."

Mr. MILLS read a short communication on "The pulse."

The Society then adjourned till the first Saturday after the Christmas holidays.

BOOKS RECEIVED FOR REVIEW.

Hospitals—Their History, Organization and Construction. Boylston Prize Essay. By W. GILL WYLIE, M.D. New York: D. Appleton & Co,, 1877.

Contributions to Operative Surgery and Surgical Pathology. Parts 1, 2 and 3. By J. M. CARNOCHAN, M.D. New York · Harper & Brothers, 1877.

Public Hygiene in America. By HENRY J. BOWDITCH, M.D. Boston. Little, Brown & Co., 1877.

Guide to Therapeutics and Materia Medica. By R. FARQUHARSON, M.D., Edinburgh. Philadelphia: H. C. Lea, 1877.

Materia Medica for the Use of Students. By John B. BIDDLE, M.D. Philadelphia: Lindsay & Blakiston, 1878.

A Compend of Diagnosis in Pathological Anatomy, By Dr. JOHANNES ORTH. New York: Hurd & Co., Publishers. Boston: H. O. Houghton & Co., Cambridge, 1878.

The Action of Medicines. By ISAAC OTI, A.M., M.D. Philadelphia: Lindsay & Blakiston, 1878.

The Cure of Rupture, reducible and irreducible by new Methods. By GEORGE HEATON, M.D., Boston: H. O. Houghton, & Co., Cambridge, 1877.

CANADA

MEDICAL & SURGICAL JOURNAL

FEBRUARY, 1878.

Original Communications.

REPORT OF THE UNIVERSITY LYING-IN HOSPITAL, MONTREAL, FOR EIGHT YEARS.

FROM OCTOBER 1ST, 1867, TO OCTOBER 1ST, 1875.

BY D. C. MACCALLUM, M.D., M.R.C.S.L.,

Professor of Midwifery and Diseases of Women and Children, McGill University, and Physician Accoucheur to the Hospital.

The University Lying-in Hospital is a small building, in which, on an average, 120 women are confined yearly. It has but two wards for women who have been confined, each containing four beds. There is also a separate room for private patients. The class of patients admitted into this institution is much the same as is generally found to seek the benefits of maternity hospitals in other parts of the world. It comprises poor married women, some of whom are reduced greatly in strength by improper and insufficient nourishment, whilst it is not uncommon to meet with others whose constitutions are suffering from excessive indulgence in spirituous liquors; unmarried women who have led irregular lives, and young girls who have been the victims of the seducer.

During the eight years from October 1st, 1867, to October 1st, 1875, there were 995 women delivered in the Hospital. Of these 987 made good recoveries, and 8 died; the mortality being in the proportion of 1 in 124½ cases. *Seven* of the deaths were from puerperal fever, which invaded the hospital in an

epidemic form in the years 1871 and 1872. The first outbreak of this dangerous complaint of parturient women occurred in the month of February, 1871, and of *five* patients seized *three* died. The disease had prevailed in the city during the winter of 1870-71, and had proved fatal in numerous instances, and apprehensions were entertained that it would eventually make its appearance in the hospital. The first case occurred in a poor, enfeebled, and, according to her own statement, half-starved woman, who was admitted in a state of labour from the suburbs of the city. Three hours after her admission she was delivered, and five hours subsequently the disease made its appearance, being ushered in by the most violent symptoms. Within two days four other patients were attacked; two of whom had been delivered before and two subsequently to her admission. To prevent the further spread of the disease, all the patients not yet confined were dismissed, and the Institution closed for the period of a month. It was then thoroughly cleansed and disinfected, and no other case occurred until the month of April, 1872. As in the previous year, puerperal fever was rife in the city for many months before it broke out in the hospital; so that in the two instances, in which it has during these eight years appeared in an epidemic form in this Institutiou, it has been in both imported from without; in neither did it *originate* in the hospital. In the latter epidemic there were *eight* women attacked, of whom *four* died. The limited amount of disposable space in the present building, rendering it altogether impossible to isolate the sick from those recently confined, it was again closed to patients for a period of six weeks. Since its re-opening in June, 1872, there has been no case of puerperal fever. The *eighth* death occurred in a woman who, when admitted, was in an advanced stage of Bright's disease. She was generally anasarcous, the labia being enormously swollen. The urine was loaded with albumen, and contained numerous granular casts. She was safely delivered of twins, both living: but nearly lost her life from post-partum hæmorrhage. She died on the fourth day after labour with symptoms of uræmic coma.

Of 998 children born, 959 presented the vertex; 11, the

breech: 7, the feet; 1, the knee; 2, the shoulder; 2, the face, and 3 the funis. There were 3 twin births, and 3 abortions. There were 948 children born alive—483 males, and 465 females; the still births were 47—35 males and 12 females. The proportion of still births to living children being 1 to 20. The average length of the children was: males, 20 inches; females, 19½ inches. The average weight—males, 7 lbs. 13 oz., females, 7 lbs. 11 oz; 105 males and 61 females weighed 9 lbs. and upwards. The heaviest male child weighed 11 lbs. 12 oz.; the heaviest female, 11 lbs. 6 oz. The average duration of labour in 992 cases was 8 hours and 45 minutes. The average period at which the membranes ruptured before delivery was 3½ hours. The average weight of the placenta was 1 lb. 7 oz., and the average length of the cord was 23 inches. There were two placentæ born with single children, weighing each over 3 lbs. The larger weighed 3 lbs. 2 oz., and belonged to a child weighing 9 lbs. 4 oz.; the smaller weighed 3 lbs. 1 oz,—the child weighing 9 lbs. 8 oz. There was also a single placenta accompanying a twin birth which weighed 4 lbs. 4 oz. The longest cord measured 48 inches, the shortest, 10 inches.

Instrumental interference to complete the delivery was required in 20 cases of labour. In 19 the forceps was used, and in one the perforator. The frequency with which the forceps was applied was once in 52⅓ cases. *Thirteen* were primiparæ, and the difficulty in these was attributable to three causes, operating either singly or in combination, namely, rigidity of soft parts, occipito-posterior positions of the head, and the funnel-shaped pelvis. The rarity of deformity and disproportion of the pelvis from disease is remarkable in Canada, and is no doubt due to the circumstance that in this country females of tender years are not obliged to do bodily labour under defective hygienic conditions which would have a tendency to interfere with the proper nutrition of their system, retard their development, and cause deformity of the pelvis. Of late years, however, cotton, tobacco and india-rubber factories have been established in this city, giving employment to numerous young girls, and it remains to be seen if in the future we may not meet

with obstructed labour from distorted pelvis more frequently than we do at present. The unhealthy anæmic appearance of many of the females employed in these factories warrant us in advancing the opinion that, after the lapse of some years, a proportion of those who enter on the work at a tender age may have their nutrition seriously impaired, the bones softened or diseased, and their pelves deformed.

In the *six* remaining cases, the forceps was applied *thrice* to complete the delivery in labour complicated with convulsions; *once* in a case of twins, to extract the first child, the second being born by the natural efforts; *once* in consequence of symptoms of exhaustion appearing in a protracted labour with the eighth child, and *once* in narrowing of the conjugate diameter of the brim with prolapse of the funis. The last was the only instance in which the forceps was applied to the head above the brim; in all others, the head had descended into the cavity or had been arrested near the outlet. In the 19 forceps operations, all the mothers recovered, and 16 out of the 20 children were saved.

The forceps used were Rigby's and Simpson's long forceps, both of which have the pelvic curve. The long double curved forceps, of which there are numerous modifications, being equally applicable, whether the head of the child be above the brim, within the cavity or near the outlet, no other model is employed in this hospital.

The perforator was used *once* to diminish the size of a hydrocephalic head. There were several points of practical interest in this case. A strong, robust young woman was admitted into the hospital in labour with her second child. On examination the shoulder was found presenting at the brim; and the funis, much swollen and discoloured, protruded some distance from the vulva. She stated that labour had commenced about eight o'clock in the morning; "that the waters had escaped" about ten o'clock, and that the pains had been very powerful throughout the day. It was at this time eight o'clock in the evening, so that *ten hours* had elapsed since the rupture of the membranes. The greatest difficulty was experienced in turning

the child in consequence of its firm impaction at the brim and the uterus being strongly contracted upon it. The patient being placed fully under the influence of chloroform, we succeeded, after cautious and repeated efforts, made during the intervals of the pains, in introducing the right hand in to the uterus. A foot was readily seized and brought down below the brim. The child, however, was so impacted in the brim it was impossible to bring the leg down. The left hand was then introduced, as the right was altogether useless from fatigue and the effects of pressure, and the second foot was also seized and brought down into the upper part of the vagina. The two feet of the child were then secured, but it was found impossible by any amount of traction that could be exerted under the circumstances to bring down the limbs, and cause the body to revolve in the uterus. A loop of strong tape was then carried over the foot to the leg of the child and securely fastened. By drawing on this with one hand and at the same time pressing the shoulder firmly upward with the other hand introduced into the vagina, the shoulder receded from the brim, the inferior extremities came down and version was accomplished. As the patient's first labour had been perfectly natural and unattended by the slightest difficulty, and the action of the uterus continued strong and vigorous, no further trouble was apprehended. The head of the child, however, not being expelled, notwithstanding the presence of strong uterine action and the aid given to bring it down, a careful examination was made. The base of the cranium was found firmly wedged in the brim, and the womb, as felt through the abdominal walls, was larger and firmer than usual and quite globular in outline. We now decided that we had a head enlarged by hydrocephalus to deal with. We then perforated the skull behind the ear, a gush of water followed, and the collapsed head was instantly expelled. The patient subsequently had no unfavourable symptom, and, indeed, felt so well that she insisted on leaving the hospital on the seventh day after delivery.

Version of the child was performed in two instances of shoulder presentation. Both were complicated with prolapsus of the funis. The mothers recovered, but the children were

killed by pressure on the cord. In the case quoted above the cord had been prolapsed for ten hours, and was swollen and pulseless when the patient entered the hospital. In the other, a primipara, the membranes ruptured before the matron had examined her, and the cord came down with the gush of the waters. Fully an hour had elapsed before we saw her, and by that time all pulsation had ceased in the cord.

Hemorrhage occurred in *six cases;* or in the proportion of 1 in 166. All the mothers were saved. The treatment consisted in strong grasping pressure on the fundus uteri; the sudden application of cold to the hypogastrium and sacrum; the introduction of pieces of ice into the vagina; and, in two cases, the introduction of the hand into the uterus. Ergot of rye was also given when the patient was not much depressed. The hypodermic injection of ergotine has not been tried, as we have not had a labour complicated with hemorrhage since this mode of administering this oxytoxic has been introduced into practice. Neither have we considered it necessary to employ astringent injections into the cavity of the womb. The comparative immunity of labours in this hospital from the accident of post-partum hemorrhage is no doubt partly due to the care with which the uterus is attended to during the expulsion of the body and limbs of the child, and the subsequent separation of the placenta. The rule laid down for the attending students is :—To support the fundus during the contractions which expel the body of the child; to carefully avoid making any attempt to extract the limbs if they should not be expelled at the same time as the body; to make the nurse keep up the pressure on the fundus while he attends to the separation and removal of the child; to relieve the nurse after he has done so, and wait patiently until the uterus has resumed its action; to make firm pressure when he feels the womb contract strongly, and if the placenta be not then expelled, to use no force, but wait for another contraction and assist in the same way, continuing this until the after-birth comes away; and lastly, *not to touch the cord* unless from the circumstances of the case he has reason to suspect morbid adhesion of the placenta, in which event the physician accoucheur is

to be sent for. But this immunity is also greatly to be attributed to the care with which the *adherent membranes* are treated. It is well known that the decidua reflexa is frequently firmly attached to the deeidua vera at the lower part of the uterus, and the effect of this in rendering labour tedious by prolonging the first stage was pointed out by Dr. Inglis, who recommended, in cases of lingering labour in which the "bag of waters" was not formed in consequence of this adhesion, the separation of the membranes from the uterus with the finger or with "Hamilton's bolt"—an excellent recommendation, which we have often successfully adopted in practice. It is well known, also, that the membranes are frequently prevented from coming away with the after-birth, and that there is a risk of a portion being torn off and left in the uterus, and when so retained being likely to give rise to severe post-partum hemorrhage. Authors describe this retention as the result of the membranes being "caught" and held firmly by the contracted uterus. When the membranes are very thick and bulky, they may certainly be closed upon and held by the rapidly contracting womb; but, in our opinion, this is far from being generally the cause of retention of the membranes. The principal cause is the adhesion of the membranes to the lower part of the womb, and if great care be not taken to separate the adhesion a portion is likely to be left behind, and thus be the cause among other evils of hemorrhage. From the fact, moreover, of these adherent membranes being generally unusually thin and attenuated, there is great danger of their being torn by slight traction made on them. Retention from adhesion is easily distinguished from that caused by contraction of the womb. When the placenta is turned several times in the left hand on a level with the vulva, the membranes are twisted into a cord-like form. If now the finger of the right hand be introduced into the vagina and the membranes examined, it will be found that in cases of adhesion they become twisted nearly as high up as the os uteri, but at this point they spread out towards the interior of the womb and offer an obstruction to the finger; whereas, when merely closed upon and held by the womb, the twisted membranes gradually

taper to a point, and the finger can be readily carried round them. The rule in this hospital is—to make no traction whatever on the membranes when they are not expelled from the vagina with the placenta, but to twist them and then ascertain if they be adherent. If found to be attached to the uterus, they are to be carefully separated by the finger and extracted. They are then to be examined to ascertain if they have been entirely removed.

There were *seven* cases complicated with *convulsions*. In all the mothers recovered. In *five* the children were born living, and in *two* the children were still-born. The urine was examined in each case and, with one exception, was found albuminous.

The first occurred Nov. 23, 1869, in a strong, robust young girl, aged 19, in labour, with her first child. She was seized with convulsions just at the termination of the first stage. The paroxysms were very severe, the face becoming greatly congested, and remaining more or less so during the intervals. Twenty-five ounces of blood were drawn from the arm with marked effect. The fits became less frequent and there was not so much congestion of the face and head. Chloroform was administered during the paroxysm, and 30 grains of the bromide of potassium given every second hour. A castor oil and turpentine enema was also given, and ice applied to the head. The labour not progressing very rapidly, and the head of the child having come down into the pelvis. the forceps was applied, and delivery completed. The child, a male, was dead, and weighed 8 lbs. 12 ounces. The labour lasted 9 hours. She remained in a semi-conscious condition, the convulsions recurring at longer and longer intervals until the evening of the next day, when they ceased, and she made a good recovery. The bromide of potassium was continued in the same dose, 30 grains, every fourth hour.

The *second*, a primipara, aged 28, was seventeen hours in labour, and gave birth to a dead child, a male weighing 8 lbs. 13 oz. She was apparently doing well, but twenty-four hours after labour she was seized with convulsions. Her urine was found to contain a notable quantity of albumen. She was

placed or large doses of the bromide of potassium; chloroform was administered and a terebinthinate enema given.

The *third* was a delicate young girl, aged 17, of a highly nervous organization, in labour with her first child. She was very irritable and intolerant of her pains. The labour lasted twenty hours, and she gave birth to a female child weighing 7 lbs. 4 oz. The first stage was very tedious, occupying 24½ hours. The first fit of convulsions came on at 4 p.m., at which time the os uteri was not more than half dilated. The paroxysms had a remarkable effect on the progress of the labour. The os was fully dilated at 5 p.m., when a second convulsive attack occurred, and at 7 p.m. she was delivered by the natural efforts. The child was living. An examination of the urine proved it to be free from albumen. Altogether the patient had five convulsive seizures—three before and two after labour.

Treatment consisted in the administration of the hydrate of chloral and the bromide of potassium, with beef-tea and wine. This case occurred February 15th, 1874.

The *fourth*, aged 19, a primipara, had a tedious labour in consequence of premature rupture of the membranes with occipito-posterior presentation of the head. After 11 hours of suffering the os uteri was not more than two-thirds dilated. She then became very restless and impatient, and suddenly had a fit of convulsions. We did not see her until two hours after, up to which time she had had three paroxysms. She was immediately placed under the influence of chloroform, and on examination, the head of the child being found in the cavity of the pelvis, the forceps was applied, and the delivery completed. The child, a male, weighed 9 lbs. 8 oz., and was born alive. The convulsions continued at intervals for 48 hours after delivery, during which time she took 200 grains of the hydrate of chloral, and 8 drachms of the bromide of potassium. Calomel also was given followed by a black draught, and ice applied to the head. The motions were very copious, dark-coloured and highly offensive.

The *fifth*, aged 32, was 6½ hours in labour with her second child, a male, weighing 7 lbs. 4 oz. She had œdema of the extremities, and her urine was highly albuminous. When the

os was fully dilated, she was seized with eclampsia. The forceps was applied, and the usual treatment adopted. She recovered without a bad symptom.

The *sixth*, aged 26, was safely delivered after a labour of 9½ hours' duration, of a female child weighing 10 lbs. 6oz. Twenty-four hours after labour she complained of severe frontal headache with nausea, and the urine being examined was found to contain about 10 per cent. of albumen. She had a slight convulsion, which was followed by two others at intervals of 10 minutes. She had during 18 hours 16 convulsions. Hydrate of chloral was injected hypodermically by Dr. Roddick, who was called upon in our absence from the city. It was administered in this way in consequence of the difficulty that was experienced to get the patient to swallow anything. Altogether she received, hypodermically, 1½ drachms of hydrate of chloral in 10 injections. A turpentine-and-soap enema brought away a large quantity of very offensive fæces. A hard swelling, about the size of a small pigeon-egg, formed at the site of each injection. Over one of these a superficial slough formed about the size of a sixpence, leaving after separation an ulcer that healed readily. All the others were gradually absorbed and entirely disappeared.

The *seventh* was a strong, healthy girl, a primipara, aged 19, who gave birth to a living female child weighing 8 lbs. 1oz, after a labour of 16 hours' duration. Two and a half hours after delivery she had a severe convulsion, which was followed by two others within the space of half an hour. Twenty-five ounces of blood were drawn from the arm, which arrested the convulsions, and she slept tranquilly for three hours. She then had a fourth convulsion. Bromide of potassium and hydrate of chloral were now prescribed, and ice applied to the head. A free evacuation from the bowels was obtained by a turpentine and castor-oil enema. The paroxysms continued to recur at short intervals until the afternoon of the next day, when they ceased. She remained, however, for three days in a semi-conscious state, very restless, with an accelerated pulse, a dry, hot skin, and great thirst. Perfect quiet, a darkened room, liquid nourishment and the free administration of the liquor ammoniæ

acetatis relieved these symptoms, and on the fifth day she was perfectly conscious and made a rapid and satisfactory recovery. She had altogether 21 convulsions within 22 hours.

From this record it will be perceived that *venesection* was had recourse to only twice in the treatment of seven cases of convulsions, but we may state that this circumstance was not due to any want of faith in the efficiency of this remedy in puerperal eclampsia, but simply to the fact that the class of patients admitted into the hospital will not, as a rule, bear depletion; and the same, we believe, may be said generally of women living in cities. In a similar case to those in which we employed it, that is, in a case of puerperal convulsions occurring in a strong, robust young woman, accompanied by great congestion of the head and face, the patient being comatose in the intervals, we would not hesitate to draw blood from the arm. By so doing we believe that we would place her in a more favourable condition to be benefitted by the other remedies employed to control the convulsive paroxysm.

In *three* cases labour was followed by *Puerperal insanity*. The first was an unmarried female, a primipara, aged 33, who was admitted as a private patient. She was 5 feet 9 inches in height, thin and of sallow complexion. She had for years been troubled with a tumour of the uterus, for which she had consulted various physicians who agreed in opinion that it was fibroid in character. It occupied the right side of the fundus, and formed a large, rounded and hard projection from the surface of the womb, with which it was connected by an extended base. She had been the subject of metrorrhagia, and on two occasions her life had been despaired of in consequence of the enormous quantity of blood lost. To allay the pain from which she suffered, she had been allowed to take opium freely, and she had become an habitual opium eater. During the two months she was in hospital before the date of labour, she had in a measure conquered the craving desire for opium. On the 17th August, 1870, she was delivered, after a severe labour of 13½ hours' duration, of a living male child, weighing 7½ lbs. The breech presented. A dose of ergot of rye was given just before the

breech was born, and followed by another after the expulsion of the child. Severe hæmorrhage occurred before the expulsion of the placenta, but was controlled by the introduction of the hand into the uterus, the removal of the placenta, and the subsequent application of pressure to the fundus of the womb with the introduction of ice into the vagina. On the third day after labour she had an attack of acute mania. She was very violent and abusive, and four students were required to restrain her movements and keep her in bed. Large doses of the bromide of potassium in combination with opium were given, and this treatment had the effect of quieting her restlessness somewhat, although she remained as talkative and as abusive as before. She required constant watching, as she was disposed to inflict injury on others. Once, when left a moment to herself, she leaped from the bed, rushed round the room, and when the nurse with the student in attendance came into the room to secure her, she struck the nurse a violent blow on the chest that felled her to the ground. Hydrate of chloral, which shortly before had been introduced into practice, was tried on the fourth day. The first dose of 30 grains procured about half an hour's sleep. She obstinately refused to take a second dose. The bromide of potassium was continued, with nourishing diet, and half a drachm of the tincture of opium given at bed-time. On the ninth day we made another trial of the hydrate of chloral, which she now took willingly. It had the effect of producing a sound sleep of several hours' duration from which she awoke more collected and rational than she had been. From this time her improvement was rapid. On the twelfth day her friends arrived from the United States, and insisted on taking her home with them, although warned of the risk of removing her so soon. When she left, her mind was quite restored and she conversed quietly and sensibly. Her pulse was 92, and her temperature 99° Fahr.

The *second* was a young girl, aged 19, who had been seduced, and who exhibited great distress of mind concerning her condition. Her labour was perfectly natural. Five days after she had an attack of mania. She improved under treatment, and

became more quiet and manageable; but, after the lapse of two months, the mental aberration continuing, she was sent to the Provincial Lunatic Asylum at Beauport. In this instance there was a family history of insanity, her father having died in a lunatic asylum.

The *third* was a large, exceedingly stout girl, aged 21, a primipara. Her labour was natural, and she progressed favourably until the sixth day after delivery. On that day she received a severe mental shock from accidentally seeing a girl in the hospital who worked in the same millinery establishment, and a few hours after became furiously maniacal. Her language was filthy and abusive, and she had strong homicidal tendencies. For seven days she had to be watched constantly by relays of two students, as one would be unable to control her during her fits of maniacal excitement. On one occasion when the matron (Mrs. Hannah) was leaning over her to arrange the bedclothes, she suddenly seized her by the throat, and it was with great difficulty that the matron was rescued from strangulation. In this case the hydrate of chloral given at first in 20-grain doses every fourth hour, the interval being gradually increased, as the remedy produced its hypnotic effects and the patient improved, was of decided benefit. In three weeks she was sufficiently restored to be able to leave for home, and she had no return of the mental disturbance. In the treatment, also, a free action of the bowels was maintained by warm purgatives, and she was kept on a highly nourishing diet.

Among the curious things that were met with in the practice of the hospital during these eight years may be mentioned the following:—One child with a supernumerary finger on each hand; one with two lower incisor teeth at birth; a placenta succenturiata; and a blighted fœtus with a healthy well-formed child. In the last, the fœtus was perfectly flattened by pressure. The outlines of the head, face and extremities were very distinct, and the ear and umbilicus distinguishable. It measured six inches. The living, healthy child weighed 7½ lbs.

The youngest mother confined in the hospital was 13 years old. She was a private patient, and when admitted was in short

dresses. Although she was short in stature, her hips were wide and her chest well-developed. Some days before labour occurred we made an examination of her pelvis with Dr. Lumley Earle's pelvimeter. The bulbed extremities could be separated at the brim to the extent of 3½ inches without causing her too much pain, and we therefore concluded that no obstruction would be offered to the passage of the head from narrowing of the conjugate. By digital examination, the pelvis appeared sufficiently roomy in other directions. Her labour was natural, of 10 hours duration, and she gave birth to a male child weighing 7 lbs. 1 oz. She was confined on the 13th September, 1869, and her fourteenth birthday was in the following month of December.

OBSERVATIONS ON DIPHTHERIA,

BY FRANCIS J. SHIRIFF, M.D., LR.C.S., Edin.

HUNTINGTON, Q.

For the last three months much alarm and anxiety has existed in this section of country by the prevalence of diphtheria. For the last five years sporadic cases have occurred, and occasionally you would hear of families losing two or three children. About the 1st of October last it became epidemic, and prevailed extensively in this village and some parts of the country. The mortality has not been great, and I should say that the epidemic has been mild, although several families have lost two and three of their number. The weather during the past fall has been peculiarly favorable for the propagation and spread of this disease. October was wet, and the air as indicated by the hydrometer, very moist, there being frequently little difference between the dry and wet bulbs of the thermometer. The amount of rain which fell, was nearly five inches, double that of 1876. In October, 1875, the same large amount fell, and scarlatina prevailed extensively. The air of October last was remarkably still, there having been twenty-seven days in which there was scarcely any wind, there being a calm in the morning and evening. There can be little doubt that the disease is contagious,

but not to the same extent as scarlatina. I have seen many cases where only one or two became affected out of a large family, and where no isolation was attempted. I have also observed that those who have had the disease in my practice this season are not so liable to take it again; in not a single instance has a patient taken it twice. I have a young lady aged 20, under my charge at present for diphtheria, and whom I attended fifteen years ago for the same disease, but the same thing occurs in scarlatina, measles, &c.

There is a fact about diphtheria which has often surprised me, and that is, the rapidity with which the disease shows itself in full force. I visited a boy aged six, who had been ill nearly five days before I saw him. Before leaving I took the precaution to examine all the other children, five in number. I conld not discover the disease in any of them. I returned next day very early and found a girl, aged four, with a quick pulse, hot skin, and a large diphtheritic patch on each tonsil, in fact the disease fully developed. She recovered in three days. The boy died in five days, the disease having spread into the trachea. He was so unruly and so difficult to manage that I could do nothing for him. My earliest recollection of diphtheria occurs as far back as 1845, when I remember two children who died of diphtheritic croup. It went then by other names, as cynanche maligna, and putrid sore throat. In 1847, just before the advent of ship fever, it prevailed, and was known then by the name of diphtheritis.

Thirty years ago the treatment prescribed was swabbing with solution of nitrate of silver, emetics, warmbaths, blisters and hot applications to the throat. I can remember a boy aged 3, who had diphtheritic croup, who underwent that treatment, and it was continued for a fortnight, and he eventually recovered, and is at present a handsome and useful member of society. He raised from the trachea a false membrane, like the system of finger of a glove, tough and leathery. For the last year the treatment which I have adopted is the one recommended by Dr. Robert Bell, of Glasgow, to be found in the 73rd volume of Braithwaite's Retrospect, July, 1876. He recommends the throat

to be swabbed every two hours with a mixture composed of one part carbolic acid to three parts of sulphurous acid, and of tinct. ferri perchloridi and glycerine, of each four parts, and to be applied gently with a camel's hair brush; also to take internally every two hours one or two teaspoonsful of a mixture composed of 3iii chlo. potass. 3iiiss acidi sulphurosi, and 3iii tinct. ferri. perchloridi ℥i glycerine and water enough to make the mixture ℥vi. The internal mixture is given pure between the periods of swabbing the throat. I have modified this treatment to a certain extent as it is hardly necessary to swab so frequently. My treatment is as follows: Having ascertained that the disease is diphtheria, I immediately swab the throat thoroughly with the mixture first mentioned. I next apply a pocket handkerchief wet in ice-cold water under the jaws up to the ears and supported in its place by a dry cloth tied over the top of the head. The cloth is wetted frequently. This wet cloth I continue from day to day until all inflammation inside and swelling outside have disappeared. If I find much heat of skin, and rapidity of pulse, I give every two hours a dose of liq. ammon. acetatis and gelsiminum, until the fever abates, which generally takes place in 24 or 36 hours. If a purgative is necessary I give a medicine called the Chelsea compound of pulv. senna, sulpher, ginger, cream tartar, and powdered guaiacum, made into an electuary with thin syrup. I continue the swabbing until all the patches are gone, but the other mixture I continue as a tonic until the patient's strength has returned. I also use a gargle composed of salicylic acid with borax: 7 gr. of the acid and 5 grains of borax to an ounce of boiling water. I sometimes add the sulph. carbolate of soda. That is the mode of treatment which I have pursued for a year with uniform success, the only fatal case being the boy of six years, who was so unruly that I could not manage him. Dr. Bell makes a similar statement that since he began this system of treatment he has not had a patient except two whom he could not control. My patients have generally recovered upon an average in three days, that is to say, the fever and diphtheritic patches have disappeared in that time, and the patients out of danger. In no instance has any

affection followed the diphtheria, but every one has completely recovered. I do not believe that this mode of treatment will be successful in all cases, as I believe that many occur where nothing will save your patient, and also I believe that the disease is much more fatal in some places than in others. The epidemic here has been mild, and I found for a fact that many have recovered without any treatment. I should like exceedingly to see Dr. Bell's mode of treatment tried in some place where the disease has been very fatal. Wherever I have a patient I leave a brush and a vial of the swabbing medicine with some careful person, and I have scarcely found any difficulty in getting my directions fully carried out. There is such a fear and horror of the disease that every one is glad to use means for checking it. I forgot to mention that I have attended during the year from 30 to 40 patients, a few being over 40 years of age. I should say something regarding the nourishment. I generally give them milk, frequently also oatmeal porridge, beef tea, chicken soup, &c. In most cases my patients eat pretty well, and I have also noticed that little treatment is required during the night, excepting the changing of the wet cloths, as they sleep a good deal, and I agree with Dr. Bell that patients should not be wakened to give them medicine.

I have scarcely ever used stimulants, as I consider them injurious. I have once or twice given a teasponful of pure brandy where there was much vomiting. I have also given chloral in five grain doses where there was a total want of sleep for over 30 hours. In one case my patient fell asleep in less than five minutes after taking five grains. She was a girl aged six, and had not slept for 30 hours.

SALICYLIC ACID.

For two or three years acute rheumatism has not prevailed in this part of the country, and I have only had three opportunities of trying the salicylic acid. It was completely successful, as in three days the swelling and pains in the joints disappeared. During the last two months I have used it externally as a wash. The first case I used it in was a large deep ulcer on the top of

the foot from a burn. I used the red wash first without doing any good, I then substituted the salicylic acid, 7 grs. to the oz., with 6 of borax, I dissolve the borax in boiling water, and then add the acid. Almost immediately a healing action commenced. In about three weeks the sore was healed. I used the same solution in a case of amputation of the arm, with the like effect. It does not smart and has no smell. I have used it in skin diseases, hæmorrhoids, and sore mouth in fever. I have also used it by inhalation in severe cough with benefit, and also for sore eyes, using the atomizer. In fact, I find it invaluable, and would not now like to be deprived of its use. I applied the dry powder once to a tonsil in diphtheria, with apparently good effect. I use it sometimes mixed up with olive oil in skin diseases. It would probably do well mixed with glycerine.

HUNTINGTON, P. Q., January, 1878.

CASE OF DIPHTHERIA—ACUTE LARYNGEAL SYMPTOMS—TRACHEOTOMY—RECOVERY.

BY JOHN BELL, A.M., M.D.,

Physician to the Protestant Infants' Home.

On Monday the 24th of September last, Mrs. F., Ontario street, near St Lawrence street, called at my office with her son, two and a half years old, who had a sore throat which she feared was diphtheritic. I found he had a white membrane covering both tonsils and extending up the pillars of the fauces to the uvula. He had not been well, and, having complained of some difficulty in swallowing, the mother had that day examined his mouth and discovered the diseased condition of the back part of it. She had observed that he was feverish from the Thursday previous.

The boy is rather delicate, and last year had the measles, which was followed by a prolonged attack of bronchitis and debility. In February last, Dr. Osler and I removed from him a large cyst, containing yellowish fluid and cholesterine, situated over the sternum.

The treatment I followed consisted in the application of tinc-

ture of iodine to the diseased surface once a day, in wiping out the fauces and pharynx every hour with a mixture in equal parts of sulphurous acid and glycerine, with sulphite of soda, and in the administration of the citrate of iron and quinine. The weather being fine, the boy was brought daily to my office until the 1st of October. No improvement in his condition took place, but rather the reverse. The area of diseased surface covered with white membrane had increased, extending over the sides of the pharynx. On the 1st of October, being out of town, Dr. Blackader kindly saw the case for me, and made a rather unfavourable prognsois, as dyspnœa had commenced. He ordered poultices to the throat, and water containing carbolic acid to be constantly boiled near the bed. This production of carbolized steam was continued for the following three weeks, and the successful result of the subsequent operation was probably largely due to its continuance. During the 2nd of October the dyspnœa increased, and brandy was added to the remedies employed. The boy's strength had, of course, been kept up by a liberal supply of meat broths and milk.

On the afternoon of the 3rd of October the dyspnœa had become so extreme that the blood was but imperfectly aërated, coma was beginning, and death was not far distant. Having been instructed to that effect the father brought word of this, and Dr. Roddick went with me —tracheotomy to be performed, if thought advisable. After finding the urgent dyspnœa, the advanced cyanosed condition, the marked diaphragmatic respiration, that the lungs were in a healthy condition, and that death would soon end the child's struggle for life, chloroform was administered and I rapidly opened the trachea. But before the tube was inserted the patient had ceased to breathe. Dr. Roddick, with characteristic promptitude and energy, performed artificial respiration while, by applying my mouth to the tube, I expelled the clotted blood with which it had become obstructed, and inflated the lungs each time Dr. Roddick raised the arms. A beautiful pink colour of the lips and skin soon took the place of the ashy purple, and the patient continued the respiration for himself. A Durham's tracheotomy tube was

used, but the inner one, proving of too narrow calibre to admit sufficient air, was not used. The blood and mucus were subsequently removed from the tube by means of feathers, although the little fellow kept it pretty clear by energetically blowing out the obstructions. A warm, moist sponge was placed over the tube and against this was constantly directed through a paper cone or tube, a current of steam from a tin tea-pot, which contained half an ounce of pure carbolic acid, in four or six ounces of water. This was continued for more than two weeks, and until after the tube was permanently removed. I watched him myself until the next morning, and am indebted to Messrs. McCorkill and Rutherford, medical students, for kind assistance in this way.

The following are jottings of the progress of the case: —

Oct. 3rd.—Pulse 120; respirations 40 to 50.

5th.—Pulse 130; respirations 36; temperature 100°. F.

6th.—Pulse 128; respirations 36. Removed and washed the tube, the patient in the meantime breathing through the incision alone, which remained open.

9th.—Is able to force a small quantity of air through the larynx when the incision is closed. The mucus from the trachea, which had become clear or white shortly after the operation, has been stained with blood for the last two or three days.

10th.—Pulse 140; respirations 36; temperature 100°.—Back and base of right lung dull on percussion; left side quite resonant. Is able to blow more strongly through the larynx when the tube is out.

11th.—Pulse 132; respirations 28; temperature 99.2°.

12th,—Pulse 100; respirations 38 asleep, 26 awake.

13th.—P ulse128; respirations 28; temperature 101.2°; midnight, pulse 120; respirations 32.

14th.—Pulse 120; respirations 40; temperature 99.6°.

15th.—Pulse 120; respirations 32; temperature 99.8°. Breathes with comparative comfort through the larynx, but with considerable effort and noise, while a piece of plaster keeps the edges of the wound together. The voice is formed sometimes for an instant in his efforts to speak.

17th.—Pulse, 140; respirations 40; temperature 100°, while asleep.

19*th*.—Tube left out altogether. The dulness of the right lung has almost entirely disappeared—poultices, mustard plasters and an expectorant mixture having been used for it, together with the brandy, which had been freely continued. It was almost as curious to watch this congestion run its course without a cough, as it was to see the little fellow cry piteously without a sound, and had I not watched the condition of the lungs I could not have detected the congestion from any change in the breathing, although, corresponding with it, there is a rise in the respiration rate and temperature which might, however, have been caused by other agents.

After the operation the sulphurous acid mixture was applied with less frequency to the throat, and half a teaspoonful was swallowed four or five times a day. The almost perfect freedom from all sources of irritation of the parts affected, together with the action of the antiseptic remedies, locally and through the circulation, soon arrested the diphtheritic exudation and caused its entire disappearance from the parts in sight several days before the removal of the tube. A diphtheritic patch at one angle of the mouth had also healed. The surface of the incision in the neck was for the first few days covered with a thin grayish-white layer, but this was changed to healthy granulations before the process of contraction began. The quantity of mucus emitted from the tube was at no time large, and it steadily decreased in amount and became more viscid in quality as the bronchial irritations, above referred to, declined, so that the carbolic acid inhaled could not have had any local injurious effect. The amount of carbolic acid inhaled with the steam during more than two weeks must have been great, for more than 30oz. were evaporated during that time, and about two gallons of alcohol were consumed in its evaporation. His bowels kept regular, requiring laxative medicine only once or twice during his illness, and his urine was passed freely in normal quantity.

About the 10th, his little sister, five years of age, who lived on the same flat, became ill and feverish, and well-marked diphtheritic exudation appeared over the tonsils and fauces, and

extended into the posterior nares with severe coryza accompanying it. She had all along got the benefit of the carbolic acid vapour; and tincture of iodine and citrate of iron and quinine were early used. The disease was not intense, and she was not confined to bed, but three weeks elapsed before the exudation and granular œdema of the superficial membrane had disappeared at the back of the uvula and velum palatinum.

About the 15th, the mother, who was four months pregnant, began to suffer from malaise and chilliness followed by fever and weakness. The throat was sore, and from white specks in the tonsillar crypts an exudation extended over both tonsils, being thickest on the left. She was so weak and exhausted that she was confined to bed. Quinine, iron and brandy were exhibited, and tincture of iodine was applied to the exudations. The cork having been left out of the bottle it had become stronger than officinal, and some of it having touched the velum palati and roof of the mouth of the left side, it was followed by a free exudation over the irritated parts. Subsequently the exudation was touched three or four times a day with Tilden's bromochloralum (a compound of aluminum, bromine and chlorine in various states of combination), and she gargled her throat more frequently with a solution of the same. The throat was quite well in little more than a week, and she had nearly recovered her usual health without a mishap by the end of the month.

The little boy became very thin during his illness, and continued weakly for some time after. There was considerable tendency to bronchial irritation, especially on exposure to slight draughts, and this is not yet quite gone, although his voice is almost entirely restored and his form is again well filled out, while his lips and cheeks have regained their normal colour.

If there is anything peculiar in the treatment of the foregoing case, it is in the amount of antiseptic agents that were administered to the patient in various ways and for a prolonged period. The disease itself was undoubtedly diphtheria. Had the medication anything to do with the successful result, and if so, in what way?

Croup is a local malady, (See Dr. J. L. Smith's article in *Trans-International Medical Congress*, 1876), this was a

constitutional one as shewn by the systemic infection in the formation of the peculiar membranes in other parts of the body, and also by the blood disease in the malnutrition, anæmia, and weakness which continued for a considerable time after. There can be no doubt that the sister and mother contracted the disease from this case, as neither of them were out of the house from the first of October until the disease appeared in the sister on the 10th, and in the mother on the 15th of October. They were exposed to the infection from the first, and we may justly conclude that several days were included in the period of incubation. In the mother the actual appearance of the diphtheritic condition was preceded for two or three days by severe constitutional symptoms which do not appear in simple cases of croup. The membranes in this case were not examined microscopically, so that it is uncertain whether they contained micrococci or not. After reading the elaborate array of facts advanced by Oertel in Ziemssen's Cyclopæ lia of Medicine, one cannot help thinking that bacteria may have something to do in the causation of this disease, although it seemed to me that he is quite as anxious to prove that micrococci are the actual cause of the disease as to find out the true nature of the materies morbi. He has not proved that the bacteria of diphtheria differ from those found in the tissues in a state of comparative health, and because in this disease they appear in immense numbers, he seems to assume that they are the cause of the disease. If they are, the circumstance is unique, for we know of no other constitutional disease that is caused by the introduction into the body of a vegetable parasite. In diphtheria, as well as in scarlet fever and other constitutional diseases with local lesions, there appears to be an unusual activity aroused, by some cause, in the bioplastic elements of the blood and solid tissues. In diphtheria this happens to be accompanied by the rapid multiplication of the bacteria already existing in the tissues. These bacteria may in turn be utilized as the carriers of the infection, which, as shewn by Beale in the case of scarlatina, most probably consists of minute particles of protoplasm in a pathological state of activity, and which, like pus-cells of various kinds may

institute the formation of elements similar to themselves from the normal healthy tissues. The particles of morbid bioplasm constituting the poison or contagium of diphtheria, whether formed by self-division in the blood, or by a degenerating action on the reproduction of existing tissues, are probably endowed with a high degree of energy in a lowered plane, and with a capability of living for varying periods under extremely altered conditions. There is no limit to be set to the minuteness of these particles of materies morbi, until possibly we reach the ultimate molecule of the bioplasm, composed of certain atoms whose immediate relations to one another, under the influence of degraded vitality, may differ from those of a healthy molecule. The nature of nearly all of the poisons of the infectious diseases, including diphtheria, seems to be to lower the vitality of the tissues and set up processes tending to septic poisoning, necrosis and putrefaction.

We know that carbolic acid and other antiseptic agents have the effect of arresting the formation and multiplication of pus cells and bacteria, and probably also of other histological elements in a lowered plane of vitality, in which might reasonably be included the morbific matter which constitutes the contagium of diphtheria and other allied diseases. On the supposition that the contagium of diphtheria is of the nature, either of living substance, bioplasm in a pathological condition, or of a physico-chemical poison tending to the extinction of the vital force and disintegration of the component molecules of the tissues, the use of carbolic acid, as antagonistic to its life or action, seems to be preferable to that of many other antiseptics, inasmuch as it may be introduced into and retained in the system in an unaltered form, as was done in the case which forms the subject of this paper. I have since used carbolic acid in steam as an adjuvant in the treatment of several cases of typhoid fever, one of which was complicated by a diphtheritic condition of the nares and pharynx with commencing septicæmia, and in each case the practice was satisfactory, as evidenced by the state of the mouth and pharynx, together with the general condition during treatment, and the ultimate result.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Excision of Elbow.—By T. G. RODDICK, M.D., Professor of Clinical Surgery, McGill University. Reported by JAMES BELL, M.D., Assistant House Surgeon, Montreal General Hospital.

S. K., a stout, healthy-looking farmer, 24 years of age, was admitted to Dr. Roddick's wards, on the 20th of November, for anchylosis of the right elbow joint. His family history is good, and, on physical examination, all his organs are found to be healthy. He has always led a regular and temperate life, and gives the following account of his injury: About the end of last June, he fell over a fence, with his right arm flexed, striking his elbow upon a stone. He thinks he fell upon the outer side of the arm. The accident occurred in the evening, and during the night the arm was very painful, and became much swollen. In the morning, he sent for a doctor, who told him that *the inner bone of the arm was splintered into the joint, and the outer bone was fractured at its upper extremity.*

The arm was fixed in a quarter-flexed position, by pasteboard splints, which extended from the knuckles, along both anterior and posterior surfaces of the arm, as high as the insertion of the deltoid. These splints were not removed for four weeks. He suffered considerable pain in the elbow, and up and down the arm, for a few days after the accident. After removing the splints, the surgeon practised passive motion, two or three times a day, for three weeks. This gave him a very slight degree of movement in the joint. On admission, the arm was found to be about a quarter-flexed, and permitted a very slight amount of flexion and extension. The hand was strongly pronated, and supination was impossible. There was a good deal of thickening about the joint, tenderness over the olecranon, and prominence of the head of the radius, which seemed to have

been dislocated backwards, behind the external condyle. The muscles of both arm and fore-arm were much wasted—the biceps being very small and flabby. The arm, though possessing a fair amount of strength, was fixed in such a position as to be of very little use to him, and a source of much inconvenience, and he was very anxious to have something done for it. Two days after admission, a consultation was called, and it was decided to resect the joint. Before proceeding to operate, however, when the patient was thoroughly under the influence of chloroform, Dr. Roddick attempted to forcibly break up the adhesions, and flex the arm. This was found to be impossible, the olecranon being fractured in the attempt. This having failed, the operation was proceeded with, with the usual antiseptic precautions of Mr. Lister. An incision, five or six inches long, was made down over the posterior surface of the joint. The periosteum and a considerable portion of the insertion of the triceps were then removed from the upper extremity of the ulna, by "Langenbeck's Raspatoirs," the ulnar nerve being held out of the way by a blunt hook. The lower extremity of the humerus was removed just above the condyles, also the articular extremity of the ulna and the head of the radius. The wound after being exposed for a few moments was closed by wire and cat-gut sutures—a free opening for drainage being left at each end of the incision. These were kept open by large pieces of drainage tube, and the wound dressed with carbolized gauze on Mr. Lister's method. This dressing being firm and rather bulky no splint was applied. The patient was then put to bed with the arm raised on a pillow. Temperature in the evening 100°. Pulse 108.

The following notes of the case were recorded from day to day by the clinical clerk, Mr. Mills.

Nov. 23rd.—Wound dressed antiseptically; looking well. A slight sero-sanguineous discharge. Temperature 99½° in the morning, 101° in the evening. Pulse 98 in the morning, 104 in the evening. Urine has to be removed by catheter. Can move fingers a little. Complains of numbness and weakness of little and ring fingers.

24*th*.—Wound dressed again and still looking well. Temperature 99° in the morning, and 99½° in the evening. Pulse 100 in the morning, 120 in the evening. Had a purgative on the 25th. Feels the numbness gradually disappearing from his fingers. Temperature remaining between 98½° and 99½°. Pulse about 100.

27*th*. — Wound dressed again. Slight serous discharge.— Neither pus nor odour.

29*th*.—Wound dressed again. Looking well. Temperature ran up in the evening to 101°, without any apparent cause, except that the bowels had not been moved for four days, and he was feeling some discomfort in consequence. I may here remark that in several of our cases of antiseptic surgery, (where the temperature has been very closely watched) sudden elevations have occurred for which no cause could be assigned, except a loaded condition of the bowels, and that this was the cause seems to be established by the fact that it invariably fell to its former range as soon as the bowels were relieved by a purgative or an enema.)

30*th*.—Patient now, for the first time, passes his urine without the aid of the catheter, and this only on being allowed to assume the erect position. Arm flexed at right angles, and supported in this position by a sling made of an elastic bandage. Drainage tubes removed. Ordered tinct. digitalis mv. spt. etheris nitrosi 3i., tr. hyoscyam. 3ss. three times daily, also a calomel purgative, to be followed by a seidlitz powder.

Dec. 2nd.—Arm dressed again. Sutures removed. Wound completely healed, except the two small openings from which the drainage tubes were removed,

4*th*. — Dressing renewed. Wound perfectly healed in all parts. Gutta percha splint moulded to anterior surface of arm, fixing it at right angles. (This splint was removed daily, and slight movements made—flexion extension, pronation and supination.) Patient allowed up, and muscles of arm stimulated every second day by electricity (interrupted current).

8*th*. — Splint removed and a flannel bandage applied. Passive motion applied daily.

18*th.* — Electricity continued, especially over the biceps. Arm can be extended to almost its full extent, and flexed so as to allow the hand to go to the mouth, but supination, though pretty fair, cannot be so satisfactorily performed. Ordered a stimulating application to arm (lin. camphoræ) and a light weight to carry in the hand, and instructed to use the hand as much as possible.

20*th.* — Arm much stronger. Can put his hand to his ear, extend flex and pronate the arm well, and supinate fairly.

29*th.* — Patient discharged, being able to grasp his ear and to extend his arm to within about an inch of its full extent. He can pronate his hand perfectly, and can supinate it to about three-fourths of the full extent. General health good.

Thus, in this case, the wound was perfectly healed in ten days from the date of operation, and the patient was discharged in the condition just described after thirty-nine days residence in the hospital.

Excision of Tongue. By Dr. RODDICK. Reported by JAMES BELL, M.D., Assistant House Surgeon, Montreal General Hospital.

J. F., farmer, 23 years of age, of medium size, well-built, and apparently healthy, was admitted October 15th, 1877, with a small, hard, painful tumor situated in the raphe of the tongue, about an inch from its extremity. No history of cancer in his family. About five years ago a blister appeared on the under-surface of the tongue, containing clear serum and accompanied by burning pain in the part. This he punctured with a needle and it disappeared for a week or two, when it reappeared, and was treated in the same way. In this way it continued to appear at intervals of one, two, or three weeks, and be destroyed by the same means, for about two years, when a small ulcer remained. He then consulted a doctor, who cauterized the sore, and it healed up, but in about a month he began to notice a small, hard mass in the same situation and accompanied by the same burning pain. About 18 months ago he had this mass (about the size of a bean) removed from

the under-surface of the tongue. Soon after he discovered a similar mass in the same situation, which continued to trouble him till August, 1876, when a V-shaped piece was removed from the tip of the tongue, including this mass in its apex, and the parts brought together with silver sutures. This healed up in a short time, but a burning and pinching pain remained in the part, with shooting pains extending down the neck, and he soon discovered the hardness which is now felt in the centre of the tongue. This hardness became gradually more distinct, and, on admission, appeared to be circumscribed and about the size of a large cherry. On enquiring into the history and symptoms, it was found that it might be an epithelial cancer, or, if not, that it might become malignant, and it was deemed advisable to remove the tip of the tongue well behind the tumor. This was done on the 17th with the chain ecraseur, 15 seconds being allowed to elapse between each movement of the instrument. There was slight oozing of blood from one or two points, which was speedily checked by the actual cautery ("Paquelin's Thermo-cautery") being used. The patient was put to bed and ordered milk and ice only as diet, and a mouth-wash composed of acid salicylic ℥ij., sodæ bibor. ℥iv, acid carbolic ℥ij., glycerine ℥ij., aquæ ad. ℥xx. His temperature was 100° in the evening and 98° next morning, and never rose above 99° afterwards. There was very little fever, and the patient was quite comfortable until the 21st (four days after the operation), when the slough began to separate and there was slight hæmorrhage, which was easily controlled by ice. There was a good deal of trouble from hæmorrhage on the next and two or three succeeding days, which was restrained by the application of liq. ferri. per chlor., the use of ice and the hearty co-operation of the patient, who remained cool and undisturbed and was very easily managed. On account of this tendency to hæmorrhage, the throat-wash was stopped and the stump brushed twice a day with glycerine of carbolic acid. The slough gradually became detached and the stump healed up rapidly, and the patient was discharged on the 5th of November perfectly well and able to speak well

enough to be readily understood. On examining (microscopically) the hard mass removed, it was found to consist entirely of cicatricial tissue, no trace of the "nests of cells" characteristic of epithelioma, nor of any new cell-growth, being discoverable.

Reviews and Notices of Books.

An Elementary Treatise on Practical Chemistry and Qualitative Inorganic Analysis. By FRANK CLOWES, D. Sc., Lond., &c., with illustrations from the second English edition. 12mo. pp. 375. Philadelphia: Henry C. Lea, 1877.

We have read this little laboratory text-book of 372 pages with great pleasure. It is, as the author states in his preface, written in "simple and intelligible" language where possible, and with due regard to conciseness and clearness of expression; all purely scientific words are left out in favour of more simple phraseology. Whilst the author has condensed his work into so small a compass, he has not, by brevity, sacrificed information,—and where he has found it necessary to explain the context more in detail, he has done so by notes in smaller type, which are numerous and full throughout the book, giving to the student of practical chemistry what he needs: a hand-book that he can work by, without being obliged to have recourse to his teacher to supplement the instruction in the book, which is so much the case with text-books in general. The use of chemical notation instead of the full chemical name of the substances, &c., employed, has also a great advantage in imperceptibly teaching the student these formulæ; thereby saving him a great deal of manual labour in writing the notes of his experiments in his note-book.

The book is conveniently divided into seven sections.

Sec. I. "Experiments illustrating the methods of preparation and properties of gases," &c.

Sec. II. "Preparation and use of apparatus required for

clinical analysis." In this section we would specially direct the attention of the student to section 14, page 49, on Cleaning Apparatus, for if there be any position in life where the adage, "Cleanliness is next to godliness," is true, it certainly is in Practical Chemistry, wherein a piece of dirty apparatus or a dirty test-tube may vitiate an experiment and occasion much loss of time and annoyance both to student and teacher.

Sec. III. treats of "Analytical operations," illustrated by experiments.

Sec. IV., under the heading of "Analytical Reaction," contains rules for entry of experiments in the note-book, which we particularly urge on the notice of the student—page 84, paragraph 39, *et seq.*; and especially at page 84, paragraph 45, section 4, "The bottle must be restoppered and replaced on the shelf in its proper place, with the label outwards, immediately after use, and must never be left standing on the working bench. Attendance to this rule will save the student (or students, if more than one) an immense amount of time and annoyance in searching for what he wants, and which has been misplaced by the carelessness of himself or co-workers. This section also gives the grouping of the metals according to the order of their prescription in the scheme of general analysis, and the groups are numbered from V. to I. In the general division as at present commonly adopted, the Potassium Group is called Group I, but in Analytical Chemistry this group, being the last to be precipitated, is usually designated by the highest number in the series of groups; whilst in theoretical works the metals are divided into groups in their relation to the displacement of hydrogen in water, and in this case the Potassium Group stands first and is usually numbered I. This explains what at first sight might appear an anomaly to a student when he finds his No. 1 Group here called No. 5. This section also groups the acids by their relations to one another and to certain precipitants, the list of acids being fuller than in most text-books.

Sec. V. is devoted to "the analysis of simple substances for one metal and one acid radicle."

Sec. VI. "Full analytical course and tables." These are very good, and the explanatory notes full and such as can be easily worked by.

Sec. VII. "Apparatus and chemicals required for the preceding course." There is added an appendix for the "Reaction and detection of the rarer elements," including spectroscopic analysis and a chart of different spectra.

The whole book is freely illustrated with tables, and in the earlier part with drawings to show the student the mode of using different apparatus and performing common operations, which are clear, distinct and well-executed.

There is a copious list of contents, which gives easy reference to the subjects, both by paragraph and page; and there is an index which, together with the list of contents, enable the student to find the information he seeks at once. The typography and the paper are alike excellent. We heartily commend this little book to the notice of all teachers of Practical Chemistry—a branch of study in our schools which must, ere long, take a much higher place in the general education of youth than it does at present. Any young man who masters the contents of this little hand-book, enters the arena of life with a great advantage over those who have not; no matter to what branch of industry or occupation he may afterwards devote himself.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

The Therapeutical use of Metals at La Saltpetriere.—The therapeutical use of metals, introduced by Dr. Burq consists in the employment internally as well as externally of metals in the treatment of certain diseases, the metallic sensibility not only in each disease, but in each patient, being taken into account. For instance, suppose that we have a case of hysteria, or chlorosis, or neuralgia, we must prescribe for the patient the metal, which placed on his skin

would tend to excite sensibility, muscular action, capillary circulation, or diaphoresis.

We will not discuss the merits or demerits of this plan of treatment, but will simply confine ourselves to some of the clinical observations made at La Saltpêtrière by M. Charcot.

CASE I.—Patient for the last eleven years has suffered from an affection of an hysterical nature, which has assumed many forms and resisted all known treatment. When first examined she had complete hemianæsthesia of the left side. This state was affected by the application of gold. A bracelet of gold coins was applied for fifteen minutes to the forearm and leg of the left side, the points of application became sensible to deep and superficial pricking. Blood flowed from the incisions, which before were bloodless. Above and around the points of application pain was felt. She was put under gold treatment. On the 11th of June last she was given two centigrammes of chloride of gold and of sodium.

From the 17th of June there was quite an increase in muscular power. On the 19th sensibility began to return to the left forearm. On the 21st appetite returned and soon became insatiable, the patient getting up in the night to eat.

June 22nd.—Sensibility normal throughout the body.

July 3rd.—Return of menses after an absence of three years.

6th.—Felt in perfect health. Getting stout. Since then the case has progressed most favourably. Menstruation regular. Sexual desire returned.

CASE II.—Patient has been hysterical five year. Blind from opacity of the cornea since she was six years old. Equally sensible to zinc and gold. Left hemianæsthesia.

June 30th.—Treatment commenced.

July 3rd.—Hemianæsthesia commencing to disappear, Increase of appetite.

10th.—General and special sensation almost completely returned.

12*th.*—Re-appearance of the menses. About the end of July normal sensibility entirely returned. No more hysterical attacks. Muscular power recovered.

CASE III.—Patient, a subject of hysterical attacks, grafted on epilepsy. Right anæsthesia. Right analgesia. Contraction of the right leg. Gold sensibility. Commenced treatment on June 6th.

July 15*th.*—Return of sensibility to touch over all the right side. At the end of July normal sensibility had returned. From this period the patient has been free from hysterical seizures. She is still subject to epilepsy.

CASE IV.—Patient hystero-epileptic, anæesthesic and amyosthenic. Generally has an attack once a month. Copper sensibility. Recovery commenced soon after she had been put under treatment. Sensibility and muscular force were beginning to re-appear, and the menses to be established. After a little time, the metal topically applied seemed to have lost its power. Anæsthesia and amyosthenia again were present. Internal treatment was commenced. Pills of the hydrated binoxide of copper, (2½ centigrammes each,) were given. Under this treatment muscular power increased and general improvement became evident, but about the 3rd of July the symptoms reappeared. She was then put upon albuminate of copper, the dose being increased up to 10 centigrammes a day. Menstruation then became regular, and her general health improved. On the 12th of July sensibility began to return. A plate of copper was placed on the less sensible parts of the body, and before long they produced the desired effect. The patient then became aware of the nature of the treatment she was undergoing, and refused to go on with it. Before long she began to lose all the ground she had gained. Analgesia, amyosthenia, emaciation, loss of strength and insomnia set in. She was advised to take two glasses of St. Christan water. Under its use she soon regained her health. The proportion of sulphate of copper in this water does not exceed 3 milligrammes to the litre. Condensed from *Gazette des Hôpitaux*, 1º 1877. No. 113.

Atrophic Orchitis following Mumps.—At a meeting of the Société des Hôpitaux, held on 10th August, 1877, M. Lereboullet exhibited a soldier, aged 22, who, four months ago, had an attack of mumps. At that time he presented all the signs of virility, physical and physiological. Four days after the attack of mumps commenced, orchitis set in, under the influence of which his two testicles assumed the size of a man's fist. In three days the orchitis disappeared. The enlargement of the parotid lasted for some time, and finally disappeared. Atrophy of the testicles then set in, with such rapidity that, at the end of twenty days, they were no larger than almonds. Simultaneously there was considerable development of the mammary glands. Previously a very hairy man, he noticed an arrest of growth of his beard, and to-day his chin is positively smooth. All sexual desire is lost.

M. Rendu remembered having seen a patient who had atrophy of the left testicle with enlargement of the mamma on that side, showing that there is a direct antagonism between the development of the testicle and that of the mammary gland,—*Bulletin General de Thérapeutique Médicale et Chirurgicale.*

Treatment of Blenorrhagic Orchitis with Iodoform.—Iodoform is one of those very useful remedies, which for reasons we cannot well explain, seems very gradually to take its proper place in therapeutics. Combined with flexile collodion, as in the formula, it relieves pain in a remarkable manner:

Flexile collodion, 30 grammes; Iodoform, 2 to 4 grammes. It is used with success as a powder, in certain atonic ulcers, and especially in ulceration of the cervix uteri.

Dr. Julian Alverez, (of Palma), has published, in the *Independencia Medica* of Barcelona four cases. From them he derives the following conclusions:

I. More effectually than all other remedies Iodoform cases the pain which accompanies blenorrhagic orchitis. This result is obtained at the end of one or two hours.

II. Iodoform acts as a powerful resolvent. It presents an

advantage over the mercurial ointment generally used, inasmuch as it causes no inconvenience by its absorption.

III. Iodoform shortens the duration of orchitis, and prevents the subsequent induration of the organ.

IV. An ointment of the strength of one or two grammes of iodoform to thirty grammes of lard should be used.—*Paris Médical.*

The Anti-Septic Method in Ovariotomy.—Dr. Anderson, of Salt Lake City, reports a case: "A six inch incision was made under a continuous carbolic spray from Sass's Atomizer, which was kept in constant play during the operation. Several cysts were tapped, a quantity of the serum unavoidably flowing into the peritoneum, some extensive adhesions to the abdominal walls first tied with animal carbolized ligatures, then severed. The cyst was removed with some difficulty, its rather broad pedicle tied securely with the same ligatures, severed with the ecraseur, and returned,"

"Prof. Lister's carbolized dressing was applied, and the patient frightfully prostrated (the operation having consumed over an hour) removed to a comfortable bed.—Stimulants and nourishment were given ad lib. etc. Re-action came on in about twelve hours, and not an untoward symptom manifested itself during recovery. The dressings removed and fresh re-applied on the eight, and the bowels moved by injection on the tenth day. In three weeks the patient walked about the room and ate breakfast at the table. Early in March, about five weeks after the operation, the patient returned home in good health. The solid portion of the cyst weighed seven pounds, being multilocular and containing nearly two gallons of serum.—*N. Y. Medical Record.*

Intra-venous Injections of Ammonia in a Case of Collapse.— Mr. Fitzgerald, of Melbourne, reports a case in which he employed intra-venous injections of ammonia with success, at a time when death was imminent from collapse. The patient had suffered for a long time

from profuse suppuration. When first seen by Mr. Fitzgerald he was almost dead; he had no pulse at the wrist, and his respiration was imperceptible. Thirty drops of a solution of equal parts of *liquor ammonia fortior* and water were at once injected into a vein. The injection was followed by violent convulsions, but these soon passed off, and the patient was able to sit up in bed and talk rationally. These good effects persisted for eight hours, but the signs of collapse then reappeared. A second injection was practised, but the greater quantity of it passed into the cellular tissue, and no marked effect was produced. A third injection was more successful. The convulsive movements were more violent than after the first operation, but the effects were more satisfactory, for the alarming symptons did not again return. The patient subsequently recovered completely. The ammonia that escaped into the cellular tissue produced a large eschar. With a little care this unpleasant result might have been avoided. It is thought that the intra-venous injection of ammonia deserves to be tried in other cases of collapse, and especially in cases of impending death from chloroform poisoning.—*Journal de Méd., etc.*—*The N. Y. Medical Record.*

Treatment of Erysipelas.—Dr. Calvey, of Toulon, uses Collodium Elasticum paint, and paints the healthy skin for an inch around, as well as the skin which has taken on erysipelatous action. He treats carbuncles by repeated paintings of collodion, in cases where the patients are unwilling to have incisions made. He says this treatment lessens the pain and causes a quick evacuation of the pus.

Prof. Bœkel, of Strassburg, has for some time treated erysipelas by injecting hypodermically a weak, watery solution of carbolic acid (1-60). He injects five to six syringesful twice a day, almost half an inch from the edge of the rash. He alleges that the temperature falls very soon, and the patient generally gets well in four to five days. Five cases of erysipelas following wounds are reported in "Baden Ærtz-Mittheilungen." In three there was a markedly favourable result from this

treatment. In one, quinine was given internally, and iodine painted on, so the favourable result could not be solely attributed to the carbolic acid. The remaining case was one of erysipelas following excision of the breast. Here the injection failed to arrest the spread of the disease, and the patient died. Still, Bœkel says carbolic acid is the surest remedy we possess, and that it generally arrests the spread of erysipelas in from two to three days.—*Schmidt's Jahrbücher*, Bd. 174, 1877.

Peculiar Case of Dizziness.—A mechanic, forty-three years' old, married, and the father of six children, consulted Dr. Good first in September, 1874, and gave the following account of himself: As he walked out one evening, in 1866, he was suddenly seized with dizziness, fear, a sense of emptiness at the epigastrium, and a feeling of weakness in the extremities. He sat on the steps of the nearest house, and after the attack was over he returned home. A second attack came on six months after, and was very severe; he had to catch hold of the nearest window to prevent himself from falling. After this the attacks came on more frequently, and not only in the street, but often when he was at his meals, or in bed. Patient never lost consciousness during the attacks. A long sojourn at the sea-shore and in the mountains had not the slightest effect, and medicines proved of no avail. He then came to Dr. Good, who saw him in several attacks. The patient would suddenly complain that he was unable to go any further, whilst he was out walking. An anxious expression of the eyes was observed, and irregularity of the respiration. Patient said he felt his brain going round, and the ground giving away from under his feet: then, again, it would seem to rise and fall, and he walked just like a sailor. When he was at sea he felt perfectly well, and never had any attacks. He was treated by cold baths, galvinism and gymnastics, and was much benefited thereby.—*Jour. de Thér.*, 1877, quoted in *Schmidt's Jahrbücher*.

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1878.

THE CURABILITY OF INSANITY.

It is commonly believed that diseases of the mind, if subjected to treatment sufficiently early, admit of cure in from 75 to 90 per cent. of the cases so treated; and that the prominent cause of insanity becoming a chronic and settled ailment is the neglect on the part of friends to apply the remedy by placing the individual so afflicted sufficiently early under proper medical charge.

However true it may be that mental diseases demand early attention, it can scarcely be admitted that, even under the most favorable circumstances, insanity is an eminently curable disease. The organ of the mind, the brain, is the most delicate structure in the whole body, and any departure from a normal or healthy standard—even though so minute as to be inappreciable to the eye of the observer—is marked by a train of symptoms which indicate a departure from a condition of health. We have alone to take the records of some of the insane hospitals and it will be found that they reveal a sad condition *quo ad* the patients admitted, and the permanent good following the treatment of their ailments. It is unquestionably a fact that to treat insanity at all, with a hope of benefit, the treatment must be begun early; nevertheless in a large proportion of cases the benefit following treatment is almost nil, or, at best only temporary.

We have before us the report of the State Lunatic Asylum at Northampton, Massachusetts, and from it we learn that during the year ending 30th September, 1877, not more than one in five of the cases received was apparently curable, and that at least one-third of these curable cases were cases of

periodical or recurrent mania. So that, mistaking cases for persons, and percentage of recoveries of patients discharged, for percentage of recoveries upon patients received at the institution, an impression has gone forth that a larger proportion of cures are effected by early treatment than is actually the fact. In analysing the cases of recoveries it will be found that one patient represents two recoveries; and of the other cases, three were admitted for the second attack, three for the third attack, one for the sixth, one for the seventh and one for the ninth attack. This is, we believe, the experience of nearly all asylums. If, therefore, correct and reliable statistics are to be obtained, these cases demand special reference.

But while the fact remains that insanity is by no means an easily managed disease, we do not wish to infer that it is absolutely incurable. Taking the reports of many of the asylums of Great Britain, the same prejudices are to be found there as is observed in this and other countries. Dr. Murray Lindsay, of the Derbyshire Lunatic Asylum, writes in his report for 1876, in reference to the number of hopelessly insane patients brought to that institution: "Instead of the Asylum being looked upon as a hospital to which patients laboring under mental aberration should be sent in the earliest stages of the malady, there appears to be an increasing tendency to detain them at home, and to delay sending them to the Asylum until every resource has failed, and then send them to the Asylum as a last refuge." Similar testimony is given in the reports of many other English and Scotch asylums, although Dr. Bucknill writes that the "prejudices suffered in common by all institutions for the insane the world over have mostly been overcome in England through the beneficent surveillance of the Commissioners in Lunacy." That prejudices do exist in the public mind against sending patients to insane asylums for early treatment is unquestionable, and is the chief cause of the large increase of hopeless cases; and, in consequence, in a large proportion of those cases the patients are thrown on the fostering care of the public for the remainder of their existence. Dr. James C. Howden, of the Montrose Asylum, writes: "The

recourse to asylum treatment may be assumed in every case to be a matter of social convenience. In recent cases the probability of recovery to a certain extent influences relatives; but in far the greater number of instances the exigencies of the situation settle the point, and the patient is sent to the asylum because he cannot be conveniently kept at home." The motives which seem to be operative, other than those of convenience, are in some instances mistaken affection, or economy, or pride. A certain stigma is attached to the word insanity, although few there are without a bee in their bonnet, yet eccentricity or peculiarity of character does not invariably mark the mind diseased—or, at least, diseased to that extent as to incapacitate the individual from living and acting amongst his fellows, and enjoying all the privileges of citizenship.

We must believe that the brain, the organ of the mind, is liable to certain changes which are shown in a departure from the customary instincts and habits of the individual, and that any change of this nature demands instant attention and judicious treatment. Failing this the disease, for such it is, being in verity a material alteration, affecting the immaterial impulse, will in all likelihood progress, going on from bad to worse until a settled, and confirmed, and unalterable state of diseased structure remains, and the patient becomes hopelessly and permanently insane.

Dr. Arthur Mitchell, one of the Commissioners in Lunacy for Scotland, published a "Contribution to the Statistics of Insanity" in the "Journal of Mental Science" for January, 1877. This is a most valuable paper and shows the actual curability of insanity as recognized in the public institutions of Scotland. Dr. Mitchell enjoys peculiar advantages and can base his observations on a large number of cases. In the introduction to his paper he says, "In this inquiry all the asylums of Scotland are regarded as one asylum, and the different institutions merely as different wards;" so that a patient leaving one institution and being admitted into another was regarded as passing from one ward to another. From his official position he was enabled to trace the history and course of each indi-

vidual case. This he has done. Taking all the persons admitted into the Scotch asylums for the first time during one year, and for twelve years thereafter, he gives the results of these cases and shows what had become of them; what was the mental condition of those who recovered, and in what condition mentally were those who had died, at the time of their death.

The total number of patients admitted for the first time into the asylums of Scotland in the year 1858 was 1,297. Twelve years after this date, or in 1870, he found that 412 of this number had died insane in the asylums, and that 273 of that number remained as inmates; 612 of the total number first observed had disappeared, but the history of 411 of these was traced, and he reports that 136 of these remained insane, 42 died insane, and 94 were living but still insane; that 275 had recovered—78 of these had died not insane, and 197 were still living in 1870 and were not insane. The histories of 201 were not cabable of being traced. Thus he traces the histories, during twelve years, of 1,096 patients who had been admitted in 1858, all being first admissions. Hence, in general terms, three-fourths of the whole number remained insane or had died insane, and one-fourth had recovered; a certain number having died in full possession of their mental faculties. This yields a percentage of 25.09 of recoveries and is very far below the number as popularly believed to be recoveries—or as yielding 75 to 90 per cent of recoveries of all cases subjected to treatment.

HECTOR PELTIER, M.D., EDIN.

PROFESSOR OF INSTITUTES OF MEDICINE, LAVAL UNIVERSITY

It is our painful duty to record the death of Hector Peltier, M.D., Edin., Professor of Institutes of Medicine in the Montreal Branch of the Medical Faculty of Laval University, and also of the Medical Faculty of Victoria College, Cobourg; which sad event occurred on Friday, 25th of January, 1878. Dr. Peltier was born in this city on the 22nd of September, 1822, and in consequence had not attained his fifty-sixth year

at the time of his death. He was the son of the late Toussaint Peltier, Q.C., a man who in his lifetime enjoyed the confidence of the public as an advocate of learning and ability, and of scrupulous probity. At an early age Hector, his son, was sent to the college at Nicolet, where he commenced his studies in general education. Subsequently he returned to his home, and attended as a day scholar at the College of Montreal. In 1838 his father, with the view of giving his son superior advantages, sent him to Paris to the College of Henri IV., where he spent two years in following the higher branches of a liberal education. Here he was remarkable for his perseverance, ability and punctuality, and the uniform gentleness and amiability of his disposition.

After completing his preliminary education, medicine became the profession of his choice, and he commenced with assiduity the prosecution of the study of this department of science. He entered as a pupil at L'Ecole de Medicine, Paris, and followed the courses in that faculty while attending the practice of the hospitals. In August, 1844, he repaired to London, and during the ensuing two months attended the practice of Guy's and St. Thomas' hospitals. The following October he proceeded to Edinburgh and entered as a student at the university in that city, where he graduated on the 1st of August, 1845,—and after having defended his inaugural thesis on "Stricture of the Urethra," he received the degree of Doctor of Medicine. On leaving Edinburgh he again visited Paris, where he remained for a short time; and, after a visit to Dublin, he finally sailed from Liverpool for New York on the 30th of November, 1845, intending to return to his native country. After a passage of forty-nine days he landed in New York, whence he returned to Montreal.

In February, 1846, he received the license of the old Medical Board, which entitled him to practice his profession in Canada. It was about this time that we became personally acquainted with Dr. Peltier—an acquaintance which ripened into friendship of the most endearing character, and which never in any way abated. In 1848 Dr. Peltier, with a few other young men (of whom the late Sir G. Duncan Gibb, Bart.,

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... established the Pathological
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... amongst us. We met at each
... meetings every alternate Saturday,
... those meetings are to be found
... day. Those pleasing and
... up for some eight or ten years.
... epidemic of Asiatic cholera,
... fell on the junior members of
... was most prevalent amongst the
... As it was believed that, in all
... invade the city the year follow-
... to establish a free dispensary for
... of the city. Relief was to be
... comers, independent of creed or
... ared in this good work of getting
... footing this charitable institution.
... canvassed the city for support, and
... was firmly established—an institution
... an act of incorporation from the
... this day, is recognised as one of the
... charities of this city of Montreal.
... performed his duty as one of the
... dispensary, and continued to do so
... an appointment as one of the attend-
... Dieu Hospital. This, with increasing
... entered to several other charities, so
... that he was forced to retire from the
... ensary when he was unanimously elected
... to that charity,—and he continued to
... nterest in the welfare of the institution.
... the act of incorporation of the profession
... in consequence of the provisions of the
... of medicine, several additional lecture-
... School of Medicine and Surgery had to be
... Dr. Peltier was selected to fill the Chair of Institutes
of Medicine; this was in A... 47. This chair he has filled

ever since; and indeed it was during the delivery of his last lecture that he was seized with symptoms which at first were looked upon as syncopal, but which soon became more urgent—paralysis ensued, he rapidly became comatose, and death followed on the fourth day after the attack. On *post-mortem* examination, a large blood-clot was found in the ventricles.

Dr. Peltier contributed several papers of worth, which are to be found in the pages of the Canadian periodicals—one, in the French language, which appeared in the *Canada Medical Journal* for April, 1852, on a case of compound comminuted fracture of the astragalus, with dislocation of the bone. This is a carefully prepared paper, as it gives a general view of the literature of the subject up to that date. Several other papers from the pen of Dr. Peltier are to be found in the pages of the *Medical Chronicle*—all of worth and interest. Of late years he did not contribute his observations to the medical journals; at least we speak of our own periodical, but not having a file of *L'Union Médicale du Canada*, we are unable to say whether he was a frequent contributor to the pages of that journal. He held the pen of a ready writer, and what he did write bore the stamp of truth and erudition.

In 1850 Dr. Peltier was elected a Governor of the College of Physicians and Surgeons of Lower Canada, and since that period he has always received the support and votes of his *confrères* of both nationalities. He has held the several offices of Secretary, Registrar, and Vice-President, and had he lived would have succeeded to the Presidential chair, as he was a general favourite, a fluent speaker, full of wit and humour, and withal a veritable gentleman of the old school.

His early death must be looked upon as a loss not alone to the community generally, whose full confidence he possessed, but to his profession, as he was the link which bound men of different parties together who are apt to disagree. A peace-maker—his genial countenance and happy disposition, and his sound common sense, allayed many differences amongst us which tended to dissention and strife. He was a true friend to the young physician,—and by those of his own age, as well as by his seniors, he was held in high estimation.

MELANCHOLY ACCIDENT.

A most distressing and fatal accident occurred to our old and respected fellow-citizen and colleague, Dr. Robert Lee MacDonnell. Dr. MacDonnell attended the funeral of the late Dr. Peltier, which took place on the morning of Tuesday, the 29th of January ult. The Doctor suffered from an old rheumatic affection of the knee-joint, and in consequence was obliged to attend in his cariole. He had drawn up at the corner of Craig street, awaiting the passage of the funeral cortege. At this moment a runaway horse, with a light vehicle, dashed down McGill street and across Craig street, making directly for the Doctor's sleigh, which was in his path. As he came up, the horse swerved to one side, and apparently struck the Doctor a heavy blow with the shaft or some portion of the harness on the left side of the head, over the mastoid process, inflicting a flesh wound three inches in length. The back part and seat of Dr. MacDonnell's sleigh was carried away, and the Doctor fell heavily to the ground, striking and badly contusing the right side of his face and temple. He was stunned by the injury, but rapidly recovered consciousness, and was taken to his home. During that day he did not complain of any symptoms pointing to brain lesion, and was so far well that hope was entertained that no serious injury had been sustained. He passed a restless night, and towards morning his son, Dr. Richard MacDonnell, who was in attendance, observed that he became excessively prostrated, as though still suffering from shock. The following day he apparently rallied, and was believed to be doing well; there was, however, some difficulty in swallowing, and in the afternoon he became heavy, and could articulate with indistinctness. Still, he appeared perfectly collected. About 3 p.m. he again showed symptoms of syncope, from which he did not rally, and he died about 3:30 o'clock. Dr. MacDonnell has practised his profession with eminence in this city, since the year 1845, when he came to this country from his native city—Dublin. He was a man of great mental culture, and highly gifted. We shall endeavour, in our next issue, to give a *resumé* of his eventful and useful career.

THE BRITISH AND FOREIGN MEDICO-CHIRURCIGAL REVIEW.

We greatly regret to notice that the publishers have been forced to relinquish the publication of this excellent quarterly, the reasons given being the lack of support. It is remarked in the publisher's farewell notice, "That he who would succeed in life must mark the signs of the times. For several years we have witnessed the gradual decline in sale of that which once was a good property, and in spite of all our efforts to infuse new life into our old friend, we have been obliged to stand by and see it languish, so that the period has arrived when to continue to publish it would be to incur an annual loss which would rather increase than diminish as time went on.—The reason of all this is that the day for quarterlies has gone by, and in face of the daily and weekly periodicals, a quarterly with its thoughtful articles and well-digested reviews is no longer appreciated as formerly." This is a decided reflection, well-merited, perhaps, on the tastes and capacity of the reading medical public. It is much to be regretted that this valued periodical has ceased to be issued, and we still hope that the sound sense of the medical public of Great Britain will demand its resuscitation. The want of this periodical will be severely felt. As a literary production, truthful and independent in its views and criticims, *The British and Foreign Medico-Chirurgical Review* stood unrivalled.

RUSSIAN FOUNDLING HOSPITAL.

In Moscow there exists a large foundling hospital, which a visitor, in an English paper, describes as being as large as a good-sized village. It supports, at the expense of the Government, some 30,000 children annually. The mortality is very considerable, ranging from 60 to 90 per cent. of those admitted during the first year. This is owing, in a large measure, to defective sanitary arrangements. The children are retained in the establishment for six months, and are wet-nursed, in a large number of the cases, by their own mothers. When dis-

charged from the hospital the nurse is paid by the State eight shillings a month for five years for the care and nurture of the child, after which it is returned to the institution, where it is provided for, and if it survives the boys are trained as soldiers and the girls for domestic service.

Personal.

James C. Cameron, M.D., C.M. (McGill, 1874), formerly House Surgeon to the Montreal General Hospital, is at present in Dublin attending the practice of the Rotunda Lying-in Hospital. We have received from Dr. Cameron an interesting paper on the injection of hot water in uterine hæmorrhage, with cases. It shall appear in our next.

Charles H. Murray, B.A., M.D., C.M. (McGill University, 1876), passed his final examination before the Royal College of Surgeons, England, and received the Diploma of Membership, on the 23rd ultimo.

Henri Victor Regnault and Antoine Cesar Becquerel, both eminent chemists, died recently in Paris, France. Becquerel was in early life a soldier. He served with distinction, and was decorated by Napoleon I. At the time of his death he had reached the ripe old age of ninety years.

PARVULES,—A NEW PREPARATION MANUFACTURED BY MESSRS. W. R. WARNER & Co., PHILADELPHIA.

We have received a box containing one dozen bottles, and each bottle one hundred small-sized pills, which the manufacturers have designated parvules. This is in contradistinction to pills and granules which are of a different size. They are exceedingly elegant preparations and are designed to administer minimum doses to children and others as occasion may require. They are coated with sugar, are of a red colour, and half the size of an ordinary pill—being circular and not oval or bean shaped as is the case with some of the many preparations which are being introduced into practice. We can recommend them to our subscribers as being perfectly reliable.

CANADA

MEDICAL & SURGICAL JOURNAL

MARCH, 1878.

Original Communications.

CASE OF HYPERTROPHY,

DILATATION AND FATTY DEGENERATION OF THE HEART, CONSEQUENT UPON PROLONGED MUSCULAR EXERTION.

By William Osler, M.D.,

Professor of the Institutes of Medicine, McGill University, Montreal.

(Read before the Medico-Chirurgical Society of Montreal.)

Do fatal and uncomplicated cases of hypertrophy and dilatation of the heart ever occur as consequences of severe and prolonged muscular exertion?

The following case is offered as a contribution to this question, upon which as yet there is a considerable diversity of opinion among Pathologists.

On Nov. 7th, 1876, I performed an autopsy on a large, powerfully-built, muscular man, who had died with all the symptoms of chronic valvular disease, and in whom great dilatation and hypertrophy of the heart were found, but without presenting any of the conditions commonly recognized as productive of these states,—no valvular affection, no arterial degeneration, no emphysema, or other chronic pulmonary disorder, no renal disease; there was, in fact, an entire absence of the lesions usually met with in cases of this kind.

I am indebted to my colleague Dr. Ross for permission to use

the following clinical notes, taken by Dr. James Bell, at that time the ward clerk:

J. W., æt. 39, an Englishman, was admitted into the Montreal General Hospital, Nov. 2nd, 1876. He is a large, powerfully-built man, with tremendous chest girth. He had been a soldier for 18 years, serving in the different British stations, and latterly had followed the occupation of a blacksmith. Has never had syphilis or rheumatic fever. Has always been a healthy man, though intemperate. In July last he suffered from shortness of breath and slight hæmoptysis, for which, in August, he entered the hospital, and was under treatment nearly two months for "some heart affection," being discharged very much improved. He then worked for three weeks as a day labourer, and suffered much from exposure to cold and wet. On October 20th he had a chill, which was followed by swelling of the legs and abdomen, with slight dyspnœa. He gave up work on the 24th, and was treated as an out-door patient for a few days before entering Hospital on November 2nd. When admitted, in addition to the above-mentioned symptoms he complained of great pain over the region of the heart. The legs were œdematous, and the conjunctivæ and face of a sub-icteroid hue. On physical examination, the cardiac dulness was found to extend as high as the upper border of the third rib, and to the right border of the sternum. A systolic murmur was heard at the left edge of the sternum in the third interspace. Apex beat could not be distinctly felt. The pulse at the wrist was barely perceptible. There was dulness over the lower lobe of the left lung. Rough snoring râles were heard over the front of the chest, and coarse bubbling râles behind. Liver dulness extended from the 5th interspace to the costal margin. The urine contained nearly 25 p. c. of albumen. The day after admission he expectorated nearly three pints of florid blood, and vomited very frequently. In spite of treatment (dry cupping, ergot, digitalis, etc.,) his condition became worse. On November 5th the pulse was quite imperceptible at the wrist, the cyanosis became extreme, and the patient died early on the morning of the 5th, with all the symptoms of chronic valvular disease.

Post-mortem, 30 hours after death. Face, neck, and skin of thorax intensely livid. Tissues beneath the skin of anterior part of trunk and about the root of the neck emphysematous. Scrotum much swollen. Legs œdematous.

Brain.—Sinuses of dura mater and veins of the pia mater full. Arteries at the base not diseased. Nothing abnormal in the brain substance.

Heart weighs 610 grms. (21½ oz.) Right chambers distended with dark clots and fluid blood; the venæ cavæ are also dilated and full, much blood escaping from them in the removal of the organ. Right auricle is very large, size of a small orange; walls of about the usual thickness. Right ventricle dilated, anterior wall measures ¼″ in thickness; columnæ carneæ are not hypertrophied. Tricuspid orifice 5⅞″ in circumference; valves healthy. Pulmonary valves normal; circumference of orifice 3″. Left ventricle contains some fluid blood, and a small partially decolourized clot in the mitral orifice. The chamber is much dilated, measuring 4½″ from apex to aortic ring, and bulges considerably towards the right ventricle. Endocardium thick and opaque, especially over the septum. Musculi papillares fibroid at apices; walls over middle of anterior part ⅞″ in thickness; posterior wall ½″; ventricular septum, a quarter of an inch below aortic valve, ½″. Mitral valves slightly thickened at the edges, otherwise healthy. Orifice measures 4¼″ in circumference. Aortic valves competent, segments thin and natural-looking; orifice at the ring measures 2¾″ in circumference. Aorta looks—relatively—smaller than natural. It is not atheromatous, either in the arch or in its course. Muscular substance of whole heart, and especially the left ventricle, looks pale, and on examination is found in a condition of advanced fatty degeneration; a good deal of fatty infiltration also exists between the individual fibres.

Arteries of the body do not present any signs of degeneration.

Lungs ℥xcvi of serum in left pleura, and the lung on this side is collapsed and only slightly crepitant above. Two very large spots of apoplexy in the anterior part of upper lobe, and

about them the lung tissue is hepatized. Another, also large, occupies the anterior border of the lower lobe. Right lung is crepitant, but contains much blood and serum. At the lower part of anterior lobe in front is a small, consolidated area.

Spleen, 250 grms., firm.

Kidneys, not enlarged. Capsules detach easily; surfaces smooth. On section pyramids and Malpighian tufts of the cortex are injected.

Stomach and intestines present nothing unusual, the large and small veins are very full.

Liver, a little enlarged, of good consistence; venules of hepatic vein gorged—nutmeg organ.

The degree of hypertrophy and dilatation will be seen at a glance in the following table:

Heart of J. W.		(Peacock.) Normal Heart.	(Bizot.) Normal Heart.
Right ventricle, ant. wall...	3‴	1.85‴	
Left " " " ...	.87″	.53″	0.43″
" " post. wall...	.5″		
" " length.....	4.5′	3.33	2.61
Mitral orifice, circumference	4.25″	3.58	4.29
Aortic " "	2.75″	3.17	2.74
Tricuspid " "	5.87″	4.50	4.81
Pulmonary orifice " - -	3.3″	3.33	2.79
Weight of Heart - - - -	21.5 oz.	9.75 oz.	

The dilatation of the left ventricle is very marked, while the hypertrophy of the walls is moderate. The mitral orifice is somewhat dilated judged by Peacock's standard, while the aortic ring is even smaller than natural, though by Bizot's standard it is just normal. It certainly appeared very much out of proportion to the huge left ventricle. The tricuspid orifice is very large, and the right chamber considerably dilated, while the opening of the pulmonary artery is about normal.

The hypertrophy and dilatation in themselves presented nothing remarkable, and the other lesions were those of every-day occurrence in organic heart disease—hydro-thorax, œdema and hæmorrhagic infarction of the lungs, venous congestion of

the liver, spleen and kidneys; the fatal result depending on the condition of the lungs. But what could account for the hypertrophy and dilatation? This was the difficulty, and so impressed was I at the time with the unusual character of the lesion that a most searching examination of the different organs was made and careful measurements of the heart were taken, but no satisfactory cause could be found for the cardiac affection, so that the notes were laid aside and the case labelled 'idiopathic.'

A few months after in Nos. 17 and 18 of the *Berliner Klinische Wochenschrift*, 1877, there appeared a paper by Dr. Zunker, one of Professor Leyden's Assistants at the Charité, Berlin, on a case of "Dilatation and Fatty Degeneration of the Heart, in consequence of over exertion," which, in its clinical features and anatomical characters is almost the exact counterpart of the one under consideration, except that the dilatation was a little more marked and the hypertrophy not so great. This gave a possible clue to the interpretation of the case, and I immediately made enquiries about the past life of the man, but was not very successful as his wife had left the city, and from her alone could definite information have been obtained. It was, however, ascertained, as stated above, that after leaving the army he had worked as a blacksmith, and latterly, for a short time, as a corporation labourer. He was, as I have said, powerfully built, and very muscular, an acquaintance describing him as a "perfect picture of a man." From the facts I have gathered, and the similarity of the case to several which have been recorded, I am inclined to regard the condition of the heart as intimately associated with and dependent upon the over use of a highly developed muscular system.

Before dealing with the question of how the abnormal state was brought about, it may be well to make a few preliminary remarks on the influence of prolonged and severe muscular effort on the circulatory system.

In the works of one or two of the older writers upon the heart very definite statements are met with bearing on this question: Thus—

Corvisart,* among other causes of heart disease, mentions muscular exertion, and records a fatal case of hypertrophy, without valvular disease, following violent exertion.

Hope† states that "occupations requiring constantly renewed muscular efforts," produce in time dilatation of the heart.

Latham‡ was, I believe, the first to recognize fully the importance of over exertion in the causation of heart affections, and under the term "shock of the heart," describes cases of rupture of valves, and of hypertrophy following sudden and severe muscular efforts.

The attention of army surgeons was early called to the prevalence of heart disease among soldiers, and in the great majority of these without any history of acute rheumatism.

McLean§ brought the subject prominently before the authorities and the profession, believing the evils to result largely from the constricting influence upon the chest of the regulation pack and other accoutrements.

Peacock,‖ about the same time, in his lectures on valvular diseases showed how liable the valves were to injury from violent muscular efforts.

During the American civil war the injurious effect of military life upon the heart was abundantly proved, and the rich clinical material then afforded enabled several observers¶ to materially advance our knowledge in this direction.

In 1870 an important monograph by Myers** appeared

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* Treatise on the Diseases and Organic Lesions of the Heart, translated by Hobb, London, 1813. pp. 28, 63.

† A Treatise on Diseases of the Heart, 2nd edition, London, 1855.

‡ Lectures on Diseases of the Heart, London, 1846.

§ Lectures at Royal United Service Institution, 1865.—Brit. Medical Journal, 1867.

‖ Valvular Diseases of the Heart, London, 1865.

¶ Da Costa: Observations upon Heart Disease in Soldiers. Medical Memoirs of the United States' Sanitary Commission, 1867.

Taylor: Remarks on Heart Disease.—Transactions of American Medical Association, vol. 18, 1867.

Da Costa: On Irritable Heart.—"Am. Journal Med. Sciences," Jan. 1871.

Treadwell: On Over-work and Strain of the Heart.—"Boston Medical and Surgical Journal," 1872.

** Diseases of the Heart among Soldiers, London, 1870.

and since that date important articles have been written by Albutt,* Seitz,† Thurn,‡ Frânkel,§ and Levy,‖ illustrating in various ways the effects of over-work and strain on the heart.

The recent works on the heart¶ deal either not at all, or very cursorily with the subject.

The above constitutes the chief literature of the subject, and from an analysis of the papers the following conclusions may be drawn with regard to the effect of overwork on the heart.

1. Sudden and violent exertion may cause rupture or laceration of the valves—a very serious lesion, which often proves fatal within a short time.

2. The augmented resistance to the flow of blood during severe and prolonged muscular exertion increases the work of the heart, which, in response to the demand made upon it, enlarges. The blood pressure in the aorta, abnormally high, even during the diastole, is much increased, during the systole of the powerful left ventrielc and the coats of the vessel yield, commonly at the arch, becoming pouched and atheromatous. Subsequently incompetency ensues, either from stretching of the aortic orifice or giving way of the valves.

3. In the functional disorder of the heart described by Da Costa, Myers, and others as common in young soldiers, and termed by the former, 'irritable heart,' there is hypertrophy of the muscular walls of the organ, caused by over-work at drill and the constricting effects of the military accoutrements. This may in time be followed by valvular disease.

4. It appears from a number of recorded cases that overwork

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* Over-work and Strain of the Heart.—St. George's Hospital Reports Vol. 5, 1872.

† Zur Lehre von der ueberanstrengung des Herzens.—Deutsches Archiv. fur Klinische Medicin, 1872.

‡ Ermudung des Herzens und die Entstehung von Herzfehlern. Republished by Seitz, together with the articles of Albutt, Da Costa, and Myers, as a separate volume.

§ Virchow's Archiv. Bd. 57.

‖ Du Cœur forcé ou de l'asystole sans lesions valvulaires. Thése inaugurale, Nancy, 1875. Resume in Archives Généralés, Janvier, 1876.

¶ Ziemssen's Encyclopedia of Practical Medicine, vol.
Balfour—Diseases of the Heart, 1875.
Hayden—Diseases of the Heart and Aorta, 1875.
Reynold's System of Medicine, vol. 4. 1877.

of the muscles may induce a primary dilatation and hypertrophy of the heart, which, without valve affection or arterial degeneration, may prove fatal with all the symptoms of chronic cardiac disease.

It is this last condition to which I wish specially to direct attention, as I believe the case reported affords an illustration of it.

Very few of the writers mentioned above, though dealing specially with effects of over exertion on the heart appear aware of the possibility of a fatal result as an immediate sequence of primary hypertrophy and dilatation.

Peacock* records three cases in which after death no affection of the valves or orifices was found, but simply hypertrophy and dilatation, and explains these conditions by supposing "that from the enlargement of the left ventricle which existed in all the cases the mitral valves had not been properly adjusted during the systole." He offered no explanation as to the cause of the enlargement of the heart, but passes on immediately after to the state of the organ in the Cornish miners, which he directly refers to the severe muscular effort necessary in their work, and in climbing long ladders up and down the shafts.

Seitz† gives a remarkable series of cases observed in Biermer's Clinic in Zurich, almost all of which presented the following symptoms: "Palpitations, and ill-defined sensations in the cardiac region, as if the heart were about to stop, shortness of breath, anxiety, feeling of faintness, cyanosis, anasarca, enlargement of the liver, irregularity and intermittent action of the pulse, dilatation of the heart, apex beat feeble and dislocated downwards and outwards, increase in cardiac dulness. Heart sounds sometimes normal, but not unfrequently murmurs at the apex." Post-mortem, the anatomical changes were confined to "Hypertrophy of the walls, and dilatation of the chambers, valves unaffected; degeneration of a few muscle fibres; rarely fatty." He regards over work as the most important factor in the production of these cases.

In the case reported by Dr. Zunker from Leyden's Clinic, the

* Loc. cit.

† Loc. cit. p. 61

connection between the over-exertion and the heart disease is very well brought out. The patient, a journeyman mason, had enjoyed good health up to six weeks before his admission. During this time he had been engaged in the unusually severe work of carrying heavy stones up long ladders. He stood this very well for three weeks, when he began to suffer from want of breath and a slight cough. Soon palpitations came on, the shortness of breath increased, the legs began to swell and he was forced to take to his bed. He got rapidly worse, and was sent to the Charité cyanotic and almost moribund. Hydrothorax of the right side was detected, the chest was tapped, and 128 cc. of clear fluid drawn off with great relief. The attacks of dyspnœa recurred, and he died four days after admission with all the symptoms of chronic heart disease. At the autopsy the heart was found enormously dilated, the walls in a condition of fatty degeneration; no valvular disease, no chronic renal or pulmonary affection.

In the case of J. W., the evidence of prolonged muscular effort is presumptive rather than direct. The occupations which the man had followed guaranteed a tolerably active exercise of his voluntary muscles, and it has been from among soldiers and smiths that a very large proportion of these heart cases have been described. Moreover, the high development of his muscular system afforded the best possible proof of its constant use. There must have been some agency at work to produce the dilatation and hypertrophy, and considering the above facts, and in the absence of all the recognized causes, I feel more inclined to regard it as due to overwork than to look upon it as spontaneous or idiopathic.

But how, it may be asked, is all this brought about? Severe muscular exertion affects the circulation in two ways: first, by interfering with respiration and the free passage of blood through the lungs; the right heart gets over-loaded, the systemic veins full, and thus an obstacle is offered to the outflow of blood from the arteries; in consequence of which the left ventricle becomes dilated and must hypertrophy to overcome the increased resistance to the arterial flow. According to Peacock, the large-

hearts of the Cornish miners are produced in this way. In the June number of Von Ziemssen's Archiv, there is an interesting article on "Das Tubinger Herz.," by Dr. Münzinger, descriptive of a form of heart disease similar in some respects to the one under consideration. It is met with among the vine dressers who undergo very severe work in carrying manure in baskets on their backs long distances up the mountains. The exertion required is very great, and the respiration considerably interfered with by the constricting pressure of shoulder straps. Sooner or later they suffer from dilatation and hypertrophy; but as this has always been found associated, post-mortem, with emphysema, it is difficult to say in these cases how much is due to this condition and how much to the muscular effort itself.

Secondly, the effect of over exertion may act in a much more direct manner. The experiments of Traube upon dogs have shown that during extensive muscular contraction the blood pressure in the arteries is greatly increased, and the same may reasonably be inferred of men. The more laborious the work, and the more violent the contraction of the muscles, so much the greater difficulty has the blood in flowing through the systemic arteries. The arterial pressure is increased and the blood tends to accumulate in the aorta and the left ventricle. If the nutrition be maintained no ill effect will follow from this, for the left ventricle hypertrophies and the balance is restored. That this state does exist is a well attested fact, and Albutt speaking of this early condition of hypertrophy says "that he has found in a few autopsies of such men killed by accident or acute disease, that the ventricles, the left especially, are, like their bicipites, large and red," the heart weighing as much as 16 oz.

The lower animals furnish good examples of hypertrophy following severe exercise. Houghton* states that the heart of the celebrated greyhound, 'Master Magrath,' weighed 9.57 oz., just three-fold in excess of the normal proportion of heart-weight to body-weight, and no other cause could be assigned for the great enlargement than the prolonged muscular effort in coursing.

* "British Med Journal," 1872..

The hypertrophy is rarely simple, being accompanied as a rule with dilatation, and to this latter the train of ill effects in these cases is chiefly due.

In the case before us at some time or other mitral insufficiency was established, either from a dilatation of the orifice, so that the curtains could not meet to close it, or, what is more probable, as Bristowe pointed out, from a degeneration in the muscular papillæ and tendinous cords, resulting in a mal-adjustment of the valves. The apices of the papillary muscles were fibroid, in places calcareous, and the cords somewhat shortened so that they might readily be supposed in the dilated chamber to "tether the valves too closely and prevent the apposition of the segments." We may reasonably infer that this man had had an hypertrophied heart for years, the balance of power being preserved so long as the nutrition of the organ was kept up. With the onset of fatty degeneration came the disturbing element; the walls, no longer able to resist the blood pressure, gradually yielded, the dilatation overcoming the hypertrophy. With this would follow all the ill effects of loss of compensation as in ordinary cases, and just such as have been reported in this one; congestion and œdema of the lungs, dilatation of right chambers general venous stasis.—all the symptoms in fact of a break-down in that marvellous piece of machinery, the heart.

THE INJECTION OF HOT WATER INTO THE UTERUS IN CASES OF POST-PARTUM HÆMORRHAGE.

WITH A REPORT OF SIXTEEN CASES.

BY J. C. CAMERON, M.D.

Of all the various complications which render parturition dangerous and difficult, perhaps none is more appalling than post-partum hæmorrhage. It is a complication which we can rarely foresee or prevent, and at times comes on so unexpectedly and to such an alarming extent that the patient is in a few moments reduced to a critical or desperate condition. All sorts of methods and remedies have been proposed, but nearly all have failed in bad cases. Pressure, ergot, cold applications,

hot applications, cold water injections, styptics, have all been advocated. Dr. Barnes has had remarkable success with the injection of perchloride of iron into the uterus; this last has certainly saved many lives, and may be regarded as the great *dernier ressort;* but it is heroic treatment, and is not always easy of application.

The application of cold externally and the injection of cold water into the vagina or uterus have proved of great value in some cases; but when this treatment is pushed too far it does positive harm instead of good. Cold does not act so much locally as in a reflex manner, stimulating the uterine fibres to contract and close the bleeding vessels; if the patient, however, becomes chilly and exhausted, and cold be still plied, it no longer acts as a stimulant, but only tends to depress still more the vital energy, and fatal exhaustion is apt to result. In such cases, the injection of hot water into the uterus has been proposed, on the theory that, when the patient's vitality is so much lowered that *cold* water can no longer produce reaction, *hot* water may act as a powerful stimulant, general as well as local. Water at the temperature of 110° to 112° F. is injected; great care having been taken to remove all air from the syringe and fill it completely with water, the vaginal tube is carried well up to the fundus; from one to two pints of water are injected, and allowed to flow out through the vagina. Clots are washed away, the uterus responds to the stimulus at once, and contracts powerfully; bleeding ceases, the pulse decreases in frequency and improves in volume, and the woman experiences a feeling of great comfort. A few doses of ergot are administered to maintain uterine contraction, and the patient usually makes an excellent recovery; after-pains are rare in these cases. Since this treatment was adopted in the Rotunda Hospital in November last, sixteen cases of post-partum hæmorrhage have occurred, in about one half of which, the perchloride of iron would have been injected; hot water succeeded so completely in every case, that the perchloride was not required at all.

In general practice hot water is always at hand, and valuable time may be gained and life saved by the use of a remedy which is so convenient and so effectual.

I append a table which gives a general view of the cases, and shows at a glance the remarkable effect of the treatment on the pulse.

TABLE OF CASES IN WHICH HOT WATER WAS INJECTED INTO THE UTERUS FOR POST-PARTUM HÆMORRHAGE.

No.	Date.	Name.	Age.	No. of Preg	Hours in Labour.	Minutes in 3rd Stage.	Pulse before injection	Pulse after.	Pulse next day.	Internal. or External
	1877.									
1	Nov 20	Mary Maher.	33	14	2½	15	162	120	112	I.
2	" 30	Mary Maher.	25	3	17	15	152	130	118	I.
3	Dec. 10	Rosa Fahy ..	20	1	22	10	145	90	95	I.
4	" 16	Bridg't Maher	28	5	13	15	130	110	100	E.
5	" 22	Sarah Sex ...	29	1	10½	30	140	126	130	I.
6	" 24	Eliza Daly...	21	1	24	5	150	120	90	I.
7	" 27	Julia Dwyer..	24	3	17	10	130	110	105	I.
8	" 29	M Reynolds..	35	1	10	15	140	128	130	E
9	" 30	M. Douglas...	26	3	..	..	120	110	106	I.
10	" 31	Ann Green ..	30	7	8	5	144	120	104	E.
11	1878.									
	Jan. 2	Agnes Wrock	19	1	10	2	160	132	120	E.
12	" 3	M. Kennedy..	30	3	5	5	120	90	104	E.
13	" 4	M Fitzpatrick	28	1	15	15	160	140	120	E.
14	" 14	Jane White..	29	5	7	5	110	88	74	I.
15	" 16	Mary Mangan	24	3	16½	15	* ..	106	72	I.
16	" 19	Ellen Flood.	36	12	..	..	120	108	110	I.

* Could not be counted.

CASE I.—Profuse hæmorrhage came on immediately after the placenta was expelled. Cold was applied to the thighs, vulva and fundus, ergot was administered, and cold water injected into the vagina; trickling, notwithstanding, kept on, until the patient was cold, clammy, and almost pulseless. The vaginal tube was then passed well up to the fundus, and about a pint of water at the temperature of 110° F. injected; the woman began to rally immediately, hæmorrhage ceased, the pulse improved in volume and became less frequent, and her life was saved. Recovery without a bad symptom.

CASE II.—Hæmorrhage was mainly *internal*. Three hours afterdelivery she seemed weak, and was noticed to sigh heavily. The uterus was found distended with clots, which were readily expelled by applying friction and pressure to the fundus. Trickling went on continuously, which ergot, cold and pressure failed

to check. Hot water was at last injected; bleeding ceased immediately, and the patient experienced instant relief from severe uterine pain, which had caused her great suffering from the time of delivery. An intra-mural fibroid existed in the anterior wall of the uterus in this case.

CASE III.—Trickling came on shortly after the expulsion of the placenta. Ergot was administered by the mouth and hypodermically, but without effect. The injection of hot water into the uterus stopped the bleeding, and the patient made a good recovery.

CASE IV.—The head was detained at the brim by undue prominence of the promontory of the sacrum. Forceps were applied; after the expulsion of the placenta oozing kept up which the administration of ergot hypodermically, failed to check. Injection of hot water into the uterus stopped the hæmorrhage immediately and completely, and the patient made an excellent recovery.

CASE V.—On account of delay in the second stage, forceps were applied. Several large sub-peritoneal fibroids existed on the upper border and anterior surface of the uterus. After the expulsion of the placenta, which had been allowed to remain for half an hour, the uterus remained very flabby, and showed no tendency to contract, and oozing kept up. Ergot hypodermically and by the mouth failed to produce any effect; hot water was accordingly injected with immediate and complete success. No cold applications were made in this case.

CASE VI.—Forceps were applied for delay in second stage. Considerable hæmorrhage came on about an hour after delivery which pressure, ergot and cold failed to check. Hot water was injected and the uterus contracted at once; a short time afterwards it relaxed somewhat and slight trickling went on for two hours; a dose of ergot made it contract firmly and no more bleeding occurred.

CASE VII.—After delivery oozing went on so quietly that it was not noticed; at the end of six hours a quantity of blood had escaped into the bed, and the uterus had relaxed and risen nearly to the ensiform cartilage; serum mixed with clots was

escaping from the vagina; the pulse was very weak. Pressure failed to dislodge the clots. Hot water was injected, the uterus contracted somewhat, bleeding ceased, and the pulse improved in volume. Infusion of ergot was given every hour, and at the end of 6½ hours, a clot as large as a placenta was expelled; the uterus contracted firmly and no more bleeding occurred.

CASE VIII.—Occurred in the extern department. Profuse hæmorrhage came on immediately after the expulsion of the placenta. Pressure and friction applied to the fundus. Cold napkins to the thighs, vulva snd fundus, ergot by the mouth, the injection of cold water into the vagina and finally into the uterus, were all tried in succession and utterly failed to stop the bleeding. A trickling, not much in amount but still persistent, kept on in spite of everything; hot water was at last obtained and injected into the uterus, and firm contraction occurred at once, and hæmorrhage ultimately ceased.

CASE IX.—An abortion at the third month.—In her first pregnancy the child was born alive. In her second, she aborted at the sixth month. On the 26th bleeding began and continued, slightly and with but little pain till the 30th at noon, when severe pain in the back and bearing-down pains set in; at 5 p.m. a great gush of blood and clots made her very weak; she reached hospital at 7.15 faint and helpless, her clothes dripping with blood. On examination the os was found to be very high up and patulous, although nothing could be felt protruding, blood flowed freely. Concluding that the ovum had been expelled, hot water was at once injected into the uterus; instead of a feeling of relief and comfort such as is usually experienced after injection, severe pains, similar to labor pains began at once, the uterus contracted firmly and no more bleeding occurred. Ergot was given for two days, and the patient made a rapid recovery.

CASE X.—A delicate, anæmic, phthisical woman, has had six miscarriages, this time having borne her first living child. A great gush of blood came before the placenta was expelled, deluging the bed and reducing the pulse to a flicker. The placenta was at once pressed off along with the clots which filled

the uterus. Pressure and ergot failing to check the bleeding, cold water was injected into the uterus; slight contraction was produced, but the ooze still kept up. Hot water was at length obtained and injected into the uterus; firm contraction came on at once, the clots were expelled, and bleeding ceased. The pulse improved in volume markedly, and in four hours had fallen to 90. For a time this patient's life had been in imminent danger, and she lived at such a distance from the hospital, that assistance could hardly have been obtained in time to save her life.

CASE XI.—Miscarriage at the eighth month. Hæmorrhage began immediately after the birth of the child, and the placenta was accordingly removed at once; pressure, cold and ergot failed to stop the bleeding, and in half an hour the woman was blanched and almost pulseless, the uterus alternately relaxing and contracting. The clots were removed as much as possible and hot water injected; the uterus contracted slightly but the ooze still went on. A portion of membrane which had been nipped by the os internum, was then removed, and cold water injected into the uterus, but the ooze still went on. Hot water was a second time injected, and the uterus responding to the stimulus, contracted firmly, and expelled the clots; no more bleeding occurred. In three hours the pulse had fallen to 120 and had improved in volume.

CASE XII.—Profuse hæmorrhage came on immediately after the birth of the child, and the placenta was removed at once. Ergot hypodermically and by the mouth, and cold applications failing to check the ooze, hot water was injected; the uterus contracted firmly and bleeding ceased. Slight oozing came on again for an hour and then finally ceased.

CASE XIII.—The fœtal head was large and much ossified; after an arrest of five hours in the second stage forceps were applied. After the extraction of the child the uterus contracted well, but just before the expulsion of the placenta, several rushes of blood came. After the placenta came away, the contraction remained good for fifteen minutes, when suddenly the uterus relaxed and as suddenly contracted, sending a great

gush of blood fully a yard from the bed. Friction and pressure were applied to the fundus, ergot was given, and cold water injected into the uterus. Notwithstanding all this, another such deluged the bed and floor, and the woman lay in a very critical state, blanched and fainting. Hot water was injected without delay, and to the great relief of all present. The uterus contracted firmly, bleeding ceased, and the patient recovered eventually without a bad symptom.

Case XIV. — Patient has been subject to post-partum hæmorrhage. Immediately after the expulsion of the placenta two gushes of blood came, followed by a continuous ooze. The uterus was soft and flaccid. Ergot was given, cold applied to the vulva, and cold water injected into the uterus; but the ooze kept up and the pulse rose from 90 to 110, and grew feebler. Hot water was then injected and bleeding ceased. After the lapse of an hour some clots were pressed out, and no more bleeding occurred.

Case XV.—A very flabby, anæmic patient. After expulsion of the placenta, the ooze kept up slightly in spite of ergot and cold applications to the vulva, till the woman became blanched and the pulse so feeble that it could not be counted. Hot water was injected and bleeding ceased, and the pulse improved in volume. A slight ooze returned after an hour, but a hypodermic injection of ergot stopped it. Next day the pulse was of good volume; the woman made a good recovery.

Case XVI.—An abortion at the 4th month. Received a blow on the abdomen on the 17th, pains began on the 18th, and at 11.30 p.m., she began to bleed profusely. She lost a large quantity of blood and when she reached hospital at 1.30 a.m. on the 19th, she was weak and blanched. The os was patulous with the ovum protruding through it. The ovum was removed without difficulty, but the uterus was full of clots, and bleeding still continued. Pulse very feeble. Hot water was injected, and the clots washed away; bleeding ceased at once and the pulse improved in volume. No more bleeding came on, and the patient made a good recovery.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Cancer of the Œsophagus.—Secondary Disease in the Vertebræ. — Paraplegia with bed-sores, and finally Death. — Autopsy. — Under the care of Dr. Ross.— Reported by Mr. T. W. MILLS.

J. F., æt. 57, tinsmith, was admitted into the Montreal General Hospital on 30th July, 1877, complaining of pain in the chest and difficulty of swallowing.

His family history is good, with the exception of his father, who died of cancer in the throat at the age of 77. He has been losing flesh for more than a year past, but was otherwise well, and noticed nothing wrong until seven months ago when he vomited pretty frequently, especially after taking a drink of water. About three months subsequently he first began to have difficulty in swallowing food, and soon found that it was rejected immediately. He would swallow a morsel down, and feel as though it was just about to enter the stomach, when it was suddenly and forcibly driven back. He once vomited about a pint of dark clotted blood. Has noticed that the degree of difficulty of swallowing varies considerably, some days worse and some days better. At present he eats no solid food of any kind but lives on milk, beef-tea, and other fluids. Complains of pain and soreness in both hypochondria, and sometimes of pain shooting through the back. He takes his food quite warm, being then able to swallow it with much less difficulty than if it be cold.

He is a small man, looks rather dark and sallow. He is much emaciated, weighing only 105 lbs., whereas he used to weigh as

much as 180 lbs. On palpation of the abdomen, no tenderness at the epigastrium, no tumour to be felt, abdominal organs normal. Heart and lungs healthy. Pulse regular, 84, small and weak: radial arteries tortuous and very much beaded.

For several days after admission he is reported unable to sleep owing to pain under the shoulder and soreness along the track of the œsophagus; cannot lie on his left side. Milk diet and morphia, chiefly by hypodermic injection, were the principle measures adopted.

Up to this time his bowels had been very regular but had become decidedly sluggish and required occasional purgatives. He also became very weak in standing and walking, and had difficulty in evacuating his urine. On 27th Sept. had retention of urine and required the catheter. During the first week of October following he began to experience a constant burning pain in the lower dorsal spinal region which was aggravated by movement. Sensation and motion in both legs became rapidly diminished, until soon there was developed a condition of complete paraplegia with incontinence of urine and fæces. On examination of the spine (Oct. 9th,) it was found that there was posterior bulging of the 9th, 10th and 11th dorsal vertebræ with marked tenderness on pressure over all of these, but especially the 10th, which is the one most projecting. A bed-sore soon formed over the sacrum, and later another over the spinal curvature in spite of the employment of a water-bed and all possible contrivances to prevent pressure. Nearly coincident with the appearance of the spinal projection marked improvement in his swallowing occurred; so much so that he could drink milk and other fluids with ease, and ate daily a small custard pudding. Days occasionally occurred on which swallowing was not so good, but with these exceptions it continued free, as last mentioned, until the end. He gradually became weaker, and ultimately died on the 13th January, 1878, worn out from want of food and the exhaustion of the large bed-sores.

Gastrotomy was actually contemplated in the early part of this case, but the very dangerous nature of the operation, and the absence of complete obstruction deterred from its perform-

ance. The subsequent events show how useless this would (even if successful) have been.

Autopsy, 22 hours after death:

Body extremely emaciated. Bed sores in lumbar region and over shoulders and hips.

Nothing special about *heart* and *lungs*. *Spleen* small. *Kidneys* pale, but not diseased. *Liver* small and bloodless.

Œsophagus.—About three inches from the cardia on the posterior wall is an elevated tumour which narrows considerably the calibre of the tube; the little finger can just pass. The tumour is about $1\frac{1}{2}''$ in length, and $\frac{3}{4}''$ in breadth, extending on the long axis, and presents elevated edges, with an ulcerated centre. It is tolerably firm, and on examination proves to be of an epithelial character.

Stomach.—At the cardiac end is a white elevated ridge in the mucosa, crescent-shaped, about an inch in length, and represents a small, secondary mass of cancer.

Nothing of special note about stomach and intestines.

After the removal of the thoracic viscera the 7th dorsal vertebra appears more prominent and larger than the rest, and is involved in a secondary cancerous growth.

On section it is soft, cutting without much resistance, and a small amount of juice oozes from the surface.

From the posterior surface of the body two round masses project, which compress the cord. The dura mater is closely adherent to them.

The *Brain* presents nothing abnormal.

The *Spinal cord* at the site of the cancerous vertebra is much compressed, and both grey and white matter reduced to a thin band. Neither the pia nor dura mater were involved in the growth, though the latter was firmly adherent to it.

The subarachnoid space below this point was very full, and towards the cauda equina distended.

Reviews and Notices of Books.

How to use the Ophthalmoscope; or Elementary Instructions in Ophthalmoscopy, arranged for the use of Students. By EDGAR BROWNE, Surgeon to the Liverpool Eye and Ear Infirmary, &c., pp. 120, with thirty-five illustrations.

Besides the chapters devoted to the Ophthalmoscope in recent standard works on Ophthalmology, the subject has been handled with more or less ability in quite a number of monographs published within the last few years; the above work belongs to the latter category, and, in some respects, deserves to take a high place in the estimation of those who intend devoting time and attention to the interesting and useful study of ophthalmoscopy.

The first chapter treats of the optical principles which require to be understood before the ophthalmoscope can be used intelligently. The author is in this chapter singularly happy in the choice of his explanations, and has succeeded in presenting in an easy and familiar style all the leading facts concerning the manner in which the interior of the eye can be so illuminated as to become visible to that of another person. The principles stated are illustrated diagrammatically so as to be perfectly obvious to the meanest understanding without the aid of a single mathematical formula.

Chapter II. contains a description of the ophthalmoscope most commonly employed, with directions for its use, which are sufficiently concise and practical, but long experience has taught us that there is a more convenient way of making an ophthalmoscopic examination by the indirect method than that recommended by Mr. Browne. The mode of procedure we prefer, is to examine the patient's left eye with our right, and *vice versa*, always holding the mirror in our right hand with its handle directed vertically downwards instead of horizontally, as advised by the author. We hold the object lens with the finger and thumb of the left hand, placing the middle finger upon the patient's brow in order to steady the lens, and folding the ring and little fingers towards the palm so as to be out of the way. The patient, then being directed to look at the surgeon's opposite

ear, thus brings the optic nerve of the eye under examination exactly into the required position. Mr. Browne's plan of holding the mirror with its handle directed horizontally is not so free from objection as he seems to imagine.

Chapter III deals with the ophthalmoscopic appearances of the healthy and normal eye, the author rightly deeming that there is no use in trying to study ophthalmoscopic diseases until the student is familiar with the somewhat varied conditions which are consistent with a healthy state of the eye. This forms a fitting introduction to chapter IV, which gives a brief but pretty complete account of the ophthalmoscopic appearances met with in disease of the eye; besides this, the important subject of refraction, and the way to determine it by means of the ophthalmoscope is gone into at some length.

On the whole we may say, without fear of contradiction, that as a guide to ophthalmoscopy, for the student, there is no better work in print than Browne on the Ophthalmoscope.

Cyclopædia of the Practice of Medicine.—Edited by Dr. H. Von Ziemssen, vol. xvi.—Diseases of the Locomotive Apparatus and General Anomalies of Nutrition, by Prof. H. Senator of Berlin: Prof. E. Seitz of Gerssen; Prof. H. Immerman of Basil; and Dr. Birch-Hirschfield of Dresden. Albert H. Buck, M.D., New York, Editor of the American edition, 8 vo. pp. 1060. New York: William Wood & Company, 27 Great Jones Street, 1877.

This volume is devoted to the diseases of the Locomotive apparatus and general anomalies of nutrition, and is a most interesting and important addition to the work. The first article on rheumatic affections of the joints and muscles is from the pen of Professor Senator. After a few introductory remarks he commences his observations or acute polyarthritic rheumatism. In discussing the etiology and pathology of the disease, the author regards chilling of the surface as taking a foremost place amongst the existing or accredited causes of the attack. He says:

"It is especially to sudden cooling of the body when heated by exertion, exhausted and perspiring, that the outset of poly-arthritis must be ascribed." He mentions the theory of Hueter who regards the occurrence of endocarditis as the primary lesion, and holds that the inflammation of the joints is the result of embolic infarctions, secondary to the heart lesions, and he proves the theory as based on insufficient grounds, and therefore not tenable.

The opinions of Froriep and Constatt, that the affection is due to disturbance of innervation consequent on peripheral irritation set up by the chill is also illustrated, and he observes, "to bring this theory into agreement with our present notions of pathology, we must suppose either that the abstraction of heat affects the trophic and vaso motor nerves of the joints directly, thereby exerting inflammatory disturbance in them, or else that it operates as an irritant upon a variable number of the peripheral expansions of centripetal nerve-fibres, through which the irritation is conveyed to the vaso-motor and trophic nerve centres, exciting them to abnormal activity." But this theory does not define the character or nature of the irritation set up by the chill; other facts have to be taken with the above to account for the result. The changes which occur in the tissues during muscular exertion are the formation of lactic acids and phosphatic salts. These, under ordinary circumstances are eliminated by oxidation, but the effect of a chill to the surface is to arrest this metamorphosis and elimination, and they necessarily accumulate in the system until otherwise got rid of. Why the joints should be the organs affected is accounted for, on the principle that "during bodily exertion they are, next to the muscles which move them, the most functionally active parts; hence they must stand second only to the muscles in their liability to disease." From these considerations the author concludes that the accumulation of lactic acid in the system is the chief factor in the occurrence of rheumatic arthritis, and that it is well worthy of being further tested both by experiment and clinical observation. This being the condition the author believes to exist in rheumatism, he naturally leans to the employment

of alkalies, and alkaline salts, preferring those of soda. He gives the experience of Chambers, Furnivall, Dickinson, Fuller, and others in the use of alkalies, and also that of Lebert in the use of lemon-juice in rheumatism, and its influence in cutting short an attack. He also mentions the experience of Gull and Sutton in the use of the same means as compared with other methods of treatment. The author hints at the discovery of a specific remedy for rheumarthritis, which he says has been constantly sought after. This naturally following on the theory of the specific origin of the disease, while commending these attempts as perfectly legitimate, he remarks that so far no remedy has been discovered which possesses undoubted "specific virtues to be capable of summarily arresting the disease under all circumstances." Salicylic acid and salicine are not mentioned by the author, as this paper was apparently written prior to the announcement of the use of these valuable remedies; but at the end of the volume the translator, Dr. Baxter, gives a summary of the use of both salicylic acid and its salts, and also salicine, as proposed by Dr. Maclagan. The translator gives a short abstract of Senator's views, or the conclusions at which he arrived after the employment of salicylic acid and salicine, and which he published in the Berlin *Wochenschrift*, 14 and 15, 1877.

Chronic arthritic rheumatism, and muscular rheumatism receive attention, and then after an article on gout, the author passes on to rickets, and finally to that rare form of disease of the bones, seen in the adult only, and chiefly in women, known as malacosteon. The next is a short paper by Seitz on what he terms slight disorders caused by catching cold, such as ephemeral fever, herpetic eruptions about the lips the result of cold, and also rheumatic catarrh.

Immermann writes the next article on the general disorders of nutrition, such as anæmia, chlorosis, and progressive pernicious anæmia. He follows with a paper on corpulence. In this paper the author in alluding to the dietary of the corpulent advises the reduction of the bill of fare; he remarks that "a diet that contains an abundance of albumen, little fat, few hydro-

carbons, and not a great deal of gluten is best suited to the prophylaxis against corpulence." He notices the fact recorded by other observers, that upon a diet in which fats and hydrocarbons have been reduced to a minimum, and the body nourished almost exclusively on albumen, sooner or later there will be a feeling of loss of strength, languor, and incapacity for exertion which will soon compel to return to a more generous regimen. There appears to be an "incapacity of the digestive organs," of these persons, "continuously to digest a sufficient quantity of albumen to meet all organic requirements." Birch-Hirschfield writes the next article on affections of the lymphatic glands, including scrofulosis, idiopathic adenitis, and malignant lymphoma, and the closing article is by Senator on diabetes mellitus, and insipidus. This volume is quite equal to any of the series. The articles are highly instructive and interesting, and the matter contained well chosen and fully up to the literature of the day. Ziemssen's Cyclopædia is fast approaching its completion, and there are few physicians who are desirous of becoming familiar with the literature of the various subjects treated of in this great work that can afford to remain without a copy of these volumes on their shelves.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Metrorrhagia after Abortion.—Dr. Lederer says that after every case of abortion, whether there be hæmorrhage or not, the placenta, or what is left of it, should be removed, if one does not wish to run the risk of losing one's patient from endometritis or pyæmia, and he further says, that severe, long continuing, and painful hæmorrhage after abortion is *always* due to retention of the whole or part of the placenta.

Dr. Pollak of Kaposvar, says, it is not always necessary to remove the placenta, that on the contrary it is often much better

to wait. He admits that severe hæmorrhage in abortion is always due to retained placenta; but he says many women abort without any bad symptoms, and without the aid or knowledge of any physician, and so, he says, it is better in many cases not to interfere. Dr. P. does not admit that women who have flooding after abortion mostly die of endometritis and pyæmia; many die of exhaustion, and others have anæmia of the brain from getting out of bed too soon.

Dr. Rezek of Teplitz, holds that certainly flooding after abortion is due in most cases to retention of the placenta, and he advises its immediate removal, but he cannot agree with Dr. Lederer when he says that it is necessary in all cases to remove the placenta, or what is left of it, whether there be flooding or not. Dr. R. advises removal only when the abortion occurs during or after the 3rd month, and when the whole placenta is retained. If part of the placenta be left and the uterus has no power to expel it, then he does not remove it more than twenty-four hours after the abortion. These indications also apply to an abortion of the second month. If all the placenta remains behind after a third month abortion, then Dr. Rezek says removal is necessary, because the uterus is unable to expel the enlarged placenta, and on account of the increased size of the cavity of the uterus, and the relative thinness of its walls flooding might easily come on and not attract notice; on the other hand an abortion occurring at the end of the 2nd month, when the walls of the uterus are relatively thick and the cavity small, the danger of unnoticed hæmorrhage does not exist. At this period the danger of puerperal complications is certainly less. Dr. R. says it is better to leave the removal of the placenta to nature when 24 hours have passed, and it would be necessary to use force to enter the uterus. He relates two cases of abortion at the 2nd month, in which the placentæ were retained, and afterwards expelled by the uteri without a single bad symptom. He always gives with the most satisfactory results, hypodermic injections of morphia for the pains of abortion.—*Schmidt's Jahrbücher*, Mo. 6, 1877.

Protracted Syncope.—Case of Protracted Syncope under the administration of chloroform,—(under the care of Mr. BRYANT.—Reported with notes by Mr. TOM BIRD, M.A., Anæsthetist to the East London Children's Hospital.).

T. C., aged fifty-seven, suffering from disorganization of the metatarso-phalangeal joint of the great toe on the left foot. History of three distinct attacks of gout.

The House-Surgeon commenced to administer chloroform on a "Skinner" of ordinary size, saturated with the anæsthetic. The "Skinner" had just been used in a prior operation of some length for epithelioma of the tongue. The patient soon began to struggle, not strongly but in a spasmodic, tremulous way. More chloroform was then poured on the "Skinner," and the patient became quiet, when Mr. Bryant, who was about to operate, required him to be moved along the operating table. This was done in the ordinary quiet way, as used with people under an anæsthetic. Almost immediately the House-Surgeon noticed that the respiration had ceased. The patient was pulled back along the table, his head depressed, and artificial respiration resorted to. The femorals of both sides, as felt simultaneously by Mr. Bryant and Mr. Durham, had ceased to beat. The tongue was drawn forward, artificial respiration maintained about twenty-eight to the minute, Mr. Bryant assisting the Sylvester method by intermittent pressure on the thorax with the palms of both hands. The colour of the patient during this period was that generally noticed prior to sickness or heart-failure under chloroform. At this time (four minutes from the commencement of artificial respiration), no pulse at the femorals being apparent, four drops of nitrite of amyl, from a capsule freshly broken on lint, was applied to the patient's nose. Almost instantaneously the colour of the face improved, and the pulsation in the femoral returned; the patient came round very quickly, so as to be "lively enough now," as Mr. Bryant expressed it, and the operation was continued under ether, the pulse for some time beating well at 120, the respiration good, and quicker than normal.

Notes.—The case is a very instructive one throughout, as there

was no doubt in the minds of all present that but for the means of resuscitation used the man would have died. The patient had urate of soda deposits in his fingers and toes, knee trouble of the same character, but otherwise seemed healthy. Subsequently his arteries were examined and found slightly affected. The chloroform was very pure, (I have since tested it), administered fearlessly, and the effects for resuscitation attended with complete success. Skinner's "inhaler" is complete for hospital work, but the material in it should be changed often. Struggling very often accompanies the administration of chloroform, especially if given boldly to strong, robust people. The struggling in this case was of that character noticed in persons addicted to stimulants. In either robust or alcoholic individuals is it right to continue the administration boldly? Most emphatically, No. The Edinburgh school may boast of immunity from death by their method, but I think their healthier patients and the purer air may explain much; but whatever it be, no one who administers chloroform to a purely London *clientèle* but will be driven by experience to give it most carefully. The patient should be moved as little and as gently as possible, while under an anæsthetic, and also during recovery. In this case there was no excessive movement; the operation was on the foot; the patient had plenty of air. In operations about the jaw, in addition to the dangers consequent on that part, I have seen a difficulty arise from a pressure on the chest, of instruments, or a casual elbow or hand. Sylvester's method of artificial respiration is the best, with this modification: grasp the arm just below the elbow, instead of at the wrist. The reasons are obvious; and the respiration should not exceed twenty-five per minute. When sufficient assistance is present the artificial respiration can be much more efficiently performed by two—one standing on each side of the patient, and working one arm a piece, this is better than only one behind the head; the assistant that pulls forward the tongue, and keeps the lower jaw forward can then stand at the head. The tongue should be well pulled forward until the entrance and exit of air to the chest can be heard. The legs should be raised at right angles to the

body; this assists the circulation, is an improvement (without interfering with the Sylvester) on the "hanging up head down" plan, (which, however, is good in the case of children,) and in addition relaxes the abdominal walls. There is no doubt of the efficacy of nitrite of amyl on the circulation; it is now prepared in hermetically sealed capsules which can be obtained sufficiently strong to carry loose in the waistcoat pocket. I have broken only one so carried during the last twelve months. Those containing five drops are the most useful. I think the strength and frequency of the pulse after resuscitation on this occasion were entirely due to the amyl. Should the patient not come round in six or seven minutes, I should recommend immediate tracheotomy or laryngotomy, as I think the air passing direct through the tube is a stronger stimulant than when passing through the normal passages warm and already impregnated with chloroform vapour. If ice be handy, a piece put in the rectum can do no harm, and has been already noticed as of avail; it interferes in no way with the rest of the process. If the heart still continues beatless after the inhalation of the nitrite of amyl, I should feel inclined to puncture the pericardium, so as to reach the apex of the heart with an electric needle. This being unsuccessful, the substance may be pierced. In no case ought artificial respiration be relaxed until the above measures have been tried, when, if the patient has undergone a very serious operation and a long anæsthesia, I trust the operating surgeon will always share the result with the administrator of chloroform.—*Medical Times and Gazette.*

Treatment of Spermatorrhœa.—Dr. Ultzman of Vienna, recommends ext. secalis cornut. mvij, and gr. xlv. of potass. bromid., daily, for cases of seminal emissions, but he places most reliance on local applications. He advocates the daily passage of a metal sound (7 or 8), and he leaves it in the urethra twenty to thirty minutes. Dr. U. finds that the patient is cured by this treatment in from 6 to 8 weeks. In very sensitive persons he uses urethral suppositories, (made of morphia gr. 1-3, tannin gr. vii., butyr de cacoa, gr. xxx). He

introduces the suppository into the prostatic portion of the urethra by means of Dittel's catheter, every other day. Later on he uses suppositories of argent. nit. gr. 1-5. butyr de cacoa gr. xxx. In true spermatorrhœa he has found electricity of much service. He applies one pole within the rectum, and the other to the perineum just behind the scrotum.

Dr. Rezek of Teplitz, says the best treatment for spermatorrhœa and seminal emissions is regular sexual intercourse.—*Schmidt's Jahrbücher*, No. 3, 1877.

Lithotomy.—Mr. Bryant showed two specimens of Prostatic Tumours removed in Lithotomy. The first was that of a man sixty-seven years of age, in whom lithotomy was performed in January, 1875, symptoms having existed for fifteen months. The blunt gorget was used, and some resistance was felt in the extraction of the calculus. This was due to a tumour of the third lobe of the prostate, which was removed with the stone. The latter was a mulberry calculus, an inch and a half in diameter, with lithic-acid deposit outside. The case did very well; urine passed per urethram on the sixth day: and in March the patient left the hospital quite well. He was seen again in May, and as late as October, 1877; he was still in good health, and had no return of bladder symptoms for four years; for two years the urine contained blood; and for six months micturition had been very frequent, and prolapse of the rectum had occurred. The presence of calculus having been ascertained, Mr. Bryant performed lithotomy, and in consequence of enlargement of the prostate gland was found to be included with the calculus between the blades of the forceps. The tumour was readily enucleated by rotating the forceps, and withdrawn with the stone; no bleeding followed. By the twenty-second day urine passed wholly through the urethra, and in six weeks the perineal wound healed, all bladder symptoms had disappeared, and the patient was now quite well. The stone was composed of uric acid, with phosphates and oxalates. The tumour in each case was composed of well-marked glandular tissue and muscular fibres; and the second specimen was in

parts so highly cellular as to lead Dr. Goodhart, who examined it, to think that it was in an actively growing condition. Mr. Bryant remarked on the great and lasting relief obtained in both cases, not only from the calculus, but from the removal of the tumour; so much relief that he would suggest that surgeons in performing lithotomy on the aged should remove any prostatic tumour that might also be present; and the cases even showed that cystotomy might sometimes be performed in cases simply of enlarged prostate. In 1848 Sir William Fergusson had shown similar specimens of prostatic tumours removed by lithotomy at the Society. Mr. Bryant also showed a specimen of Impacted Fracture of the Shaft of the Femur, from a man eighty-three years of age, who had fallen down some area steps, and fractured the lower third of the right thigh. It was found impossible to fully extend the limb. Death occurred from uræmia due to suppurative nephritis on the twenty-fifth day after admission. The fracture was found at the junction of the lower and middle thirds of the femur, the upper fragment being drawn for a distance of an inch and a half into the lower portion, which was split down to the condyles. This very rare condition could only be produced by direct violence on the distal end of the bone. It explained the failure to obtain extension, and pointed to the danger that might have arisen had attempts been made to forcibly separate the fragments.—*Lancet.*

Plugging of Superior Mesenteric and Femoral Arteries.—Mr. Howse exhibited a fresh specimen of ulceration of the bowel, with plugging of the superior mesenteric artery. It occurred in an old woman, who had gangrene of the leg. The coils of intestines could be readily seen through the abdominal parietes. The femoral artery had ceased to pulsate, and, as the patient complained of great pain, the thigh was amputated, and no more pain was experienced. The diarrhœa remained. After death, it was found that the femoral artery was plugged up to the external iliac. The superior mesenteric was plugged by a fibrinous clot. The gut was almost sloughing. The colon was adherent to the

small intestine and a perforation had taken place at this spot. There were scars on the great intestine. The President asked if the intestinal lesion came first and the plugging after, or *vice versa*. Mr. Howse thought the ulceration secondary to the plugging. Dr. Coupland asked if the gangrene of the leg were embolic. If a portion of the clot in the superior mesenteric got into the aorta, it might be washed into the femoral artery. Mr. Howse said the clot extended into the aorta. The heart and aorta were healthy. She stated that she had passed black stools.—*British Medical Journal.*

Cysts from the Peritoneum.—Mr. Thornton showed some cysts of the peritoneum, which are so rare that no account of any is to be found in the Society's *Transactions*. They are stated to arise from peritoneal inflammation. They came from a married woman aged 32, who noticed an increase in bulk after a fall. They were taken from an ovarian tumour, and eight pints of fluid were evacuated by tapping. She had low fever and bowel inflammation. There was dysuria before tapping. In the left side, a hard mass could be felt behind the uterus, which was thought to be an ovarian tumour, probably multilocular. An incision was made, and a cyst was found which was adherent in front. It was tapped; in the cavity left, no intestine could be felt, and a thick membrane could be distinguished between the finger and the viscera. In the left ovary was a blood-cyst. The right ovary was removed, and hæmorrhage occurred from the sac. The vessels could not be tied, so the abdomen was closed. The case was dressed antiseptically, and did well; in a day or two pyrexia set in, and the contents of the sac were let out, and found to consist of blood, sweet and not putrefying. The temperature fell, its rise being due to the tension within the sac. Cysts were found in the broad ligaments and in the layer of peritoneum over them. Dr. Wiltshire inquired if any hooklets had been found. Mr. Thornton replied that none were found.—*Brit. Med. Journal.*

Specimens of Tendon Ligatures.—The President, Mr. Callender, exhibited some specimens of the kind. It was certain, he remarked, that doubt existed as to the trustworthiness of catgut for the ligature of arteries in their continuity. A material that occasionally failed to arrest the blood-stream for a sufficient time to ensure the cure of an aneurism, could not be recommended with confidence. He hoped a more extended trial would confirm the promise that we had in fine tendon ligatures, that they would resist the solvent action of their surroundings in a wound, so that, although they were eventually dissolved, they lasted longer than catgut. And these ligatures tied better knots than the catgut, and the knots did not slip. Their strength, too, was sufficient; and, as they dissolved slowly, they answered well for sutures, especially where some strain was put on them, catgut quickly yielding under such an influence. The specimens of ligatures handed round had been sent him by Mr. Hulme of Guildford, who had received them from Mr. T. M. Girdlestone, Surgeon to the Albert Hospital at Melbourne. They were extracted from the tail of a marsupial, and were of various sizes as they grew. They had not been split. Mr. Girdlestone said they made very good sutures, but he had not used them on arteries. The natural tendons, however, had been freely used for ligatures. They were simply washed and dried. Before use, they should be soaked in carbolised oil, and Mr. Girdlestone recommended that they should be softened in carbolised water just before use. As the supply of these tendons was distant, and as he (the President) was unable to find any precisely similar, of sufficient length, in this country, he was having prepared ligatures which were made from tendons of the horse. They had the same characters as the tendons from the marsupial.—*British Medical Journal.*

Cystic Disease of the Thyroid.—Mr. John Wood brought before the Society a cyst which extended from the middle of the thyroid gland down to the middle of the sternum. It was twenty-four inches in circumference. It

overlapped the sterno-mastoid muscles. It was elastic to the touch, and a large venous trunk ran over it. There was no fluctuation. The tumour could be lifted up. It moved in deglutition. The superior and inferior thyroid arteries were large and pulsating. Small hard nodular masses were felt along the veins. There was great tension in the cyst. It occurred in a female aged 28, who was pale and languid. It had existed fourteen years, and had grown rapidly of late. The cyst was emptied by the aspirator, and forty ounces of dark fluid drawn off. Depression of the tumour followed. The needles were connected with a galvanic battery, but the tumour re-formed. Then thirty-six ounces of fluid were drawn off, and the cyst was injected with iodine and glycerine, but it refilled. Darting pains set in, with giddiness and palpitation; and the woman begged to have it removed. It was removed antiseptically. The operation and the after history were described by Mr. Wood with much exactitude. The woman is now nearly well. A drawing was exhibited, which showed the manner in which the blood-vessels made their entry through the capsules of the cyst. In the interior of the cyst were found projections probably portions or remains of old partition walls. The lining membranes otherwise were smooth. The President asked as to the histological characters of the cyst, Mr. Wood replied that it consisted of ordinary glandular elements, but that a more searching examination should be made. Mr. Lennox Browne said such cysts were formed usually by colloid growth breaking down. Mr. Spencer Watson had met a like case, where granular corpuscles were found in the fluid removed by tapping.—*British Medical Journal.*

Rupture of the Aortic Valves.—Dr. Burney Yeo related the subsequent history of a case of this lesion in a man whom he exhibited at the Clinical Society, in May, 1874. The man had a loud cardiac murmur, heard first a few weeks after a fall down eight or nine steps, when he had clutched violently at the handrail. He was a healthy, fresh-looking man, aged 45, and of temperate habits. He had occasionally

had some rheumatic pains in his limbs. A loud musical murmur was not only heard all over the chest, but he heard it himself, and it was audible at a distance of three feet from his body. He had no pain, no faintness, and no great dyspnœa. The murmur changed a good deal in character; once it was almost lost, and then again a loud double murmur was heard. In January last year, he was much worse; he had muscular feebleness and impaired sensation and co-ordination, being somewhat ataxic. His heart was hypertrophied, and the area of dulness was very large. In November last, when dressing, he dropped down dead. At this time, he felt so ill that he was dressing to go to the hospital. A *post mortem* examination was held, but the chest only could be examined. The heart was very large, the muscular structure commencing to undergo fatty change, while the aorta was atheromatous. As to the valves it was found that the anterior segments were separated, and the torn cusp vibrated back and forwards in the blood-current. The duration of the case was three years and a half. In answer to a question by Dr. Douglas Powell, Dr. Yeo said that the pulse was not first aortic and then subsequently mitral, but was an aortic collapsing pulse all through.—*Brit. Med. Journal.*

Impacted Fracture of Shaft of Femur.—Mr. Bryant gave an account of such an injury, occurring to a man aged 83, who fell down some steps on his right knee. The right thigh was swollen and shortened by two inches, The case went on well till uræmic symptoms set in. On *post mortem* examination, the kidneys were found to be suppurating. The femur was found fracturcd and the proximal end driven into the distal shaft, splitting it to the condyles; the seat of fracture being at the top of the lower third. Impaction might thus take place into the shaft of the bone, and the injury described could only have taken place through a fall on the knee. Extension failed in these cases to make the limb of normal length. There was a danger of over-manipulation.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1878.

AS OTHERS SEE US.

In the foreign and colonial correspondence to the *Medical Times and Gazette* of February 23rd, dated from Philadelphia, we learn that, although geographically in the bleak north, we benighted Canadians are exhibiting very praiseworthy activity in the advancement of medical science; that during the meetings of the International Medical Congress and of the American Medical Association, held at Philadelphia and Chicago respectively, gentlemen from Canada, who were present in considerable numbers, created a most favorable impression, by their personal and professional status; and that in discussions on important topics they advanced views on pathology and therapeutics in accord "with the very latest steps of progress in these directions." On this we make no comment; but we would be sorry to believe that it contained a phlippancy and impertinence which is not suitable. Further on we are informed that "Medical legislation seems to be encumbered and embarrassed in Canada pretty much the same unfortunate way that characterises it in the United States." This is decidedly an error, as our legislation is by no means embarrassed. We have local enactments in each province, whereby the licentiates of one province cannot practice legally in any other without holding the license of that province; but there is no embarassment in this, nor does it in any way resemble the law as administered in the United States.

The local enactments introduced into each province of the Dominion is the outcome of the very questionable policy of giving to each province the right of legislating as regards

the higher branches of education. So long as this continues, so long will each province claim its right of legislating in matters medical to the exclusion of every other province and every other nation. The time-honoured qualifications of the mother country hold no status in some of the provinces of this Dominion. No graduate, or licentiate, or fellow, of any college in the world has any right by virtue of his qualifications to practice his profession in Ontario, until he has submitted to examination before the local board elected by the profession in that province. In Ontario there is a central board of examiners elected under the act of the Local Legislature of that province, and no qualification, however high or thorough, is admitted except after examination touching professional knowledge; but more than this, the candidate must give proof before he is admitted to a professional examination, of having a preliminary training equivalent to a B.A. degree from a university, or of having passed an examination on preliminary subjects before a board named by the college. In our own Province of Quebec we are more liberal, and the qualifications of British and colonial Universities and Colleges may be admitted to registration at the option of the board without examination..

It is stated that "Legislation on health matters appears to be no further advanced than in some of the States of our own country." The fact is that we possess no efficient legislation on the subject of hygiene, although spasmodic efforts have been made on several occasions to introduce a measure before the House of Commons at Ottawa, but without any result. Local enactments exist in Ontario; but no good can result—nothing that will yield reliable information on this subject—until dealt with by the general government. The *curious statistical birth rate*, as given by the President in his address before the Canada Medical Association is alluded to, but with this, we are far from being satisfied as to its accuracy. When it is known that we have no efficient or reliable system of enumeration, such assertions may be correct, although they bear the impress of uncertainty.

The number of medical schools and colleges in the United

States is remarked upon. This has always been a source of regret with the most thoughtful members of the profession of that country, and is one source of anxiety in Canada, although if we had, as we may have some day in the future, a central board of examiners for the entire Dominion, before whom all candidates would have to pass before receiving a qualification as practitioners of medicine and surgery, then, indeed, might there be as many schools and colleges as could eke out an existence, without in any way lowering the standard of professional education.

THE LATE R. L. MACDONNELL, M. D., L. R. C. S., L. K. & Q. C. P., IRELAND.

The subject of this notice was born in Dublin, in the year 1817. His father was a physician of some eminence practising in Dublin, who died early in life, leaving his three children to the care and guardianship of his brother, The Reverend Dr. MacDonnell, a distinguished Fellow of Trinity College, and subsequently for many years Provost of the College. To the watchful care and generous assistance of this faithful guardian and second father, Dr. MacDonnell was not a little indebted for his success in life.

His early education was received in Scotland, and he returned to Dublin about the year 1835, and soon after commenced the study of medicine in Trinity College. Young MacDonnell entered on his course of medical studies at a time when the medical schools of Dublin presented an array of names of men known to fame in their several departments, amongst whom were Graves and Stokes, Cusack, Collis, Porter, Sir Henry Marsh, Apjohn, Crampton, and many others, who were unsurpassed.

Full of enthusiasm, with a sound preliminary training, a careful observer and indefatigable worker, he devoted himself to the study of his profession, of which, from the first he was passionately fond. Dr. Graves, at this time was unrivalled as a teacher in medicine, and as an accurate diagnostician. Attention was drawn to young MacDonnell, and he was selected to be chief clinical assistant in the medical wards of the Meath Hospital

under the charge of that eminent Physician. With such advantages for bed-side investigation Mr. MacDonnell soon made a reputation which led to preferment. Soon after passing his examination for the license in 1841, he became attached to the editorial staff of the *Dublin Journal of Medical Science*, and in the columns of that periodical he published several papers of worth and importance.

Dr. Graves in bringing out a second edition of his Clinical Lectures secured the assistance of Mr. MacDonnell. This was no ordinary compliment, and that the selection was judicious, is evident from the satisfaction expressed at the time, by the very critical author, for the valuable assistance rendered. But although Mr. MacDonnell had in May, 1841, passed the Royal College of Surgeons of Ireland, and had received his diploma as Licentiate, he continued as a student of his profession to qualify himself for higher honours. He retained his connection in the wards of the Meath Hospital under Dr. Graves, and we find frequent reference made to "Surgeon MacDonnell, my clinical clerk," in the clinical papers published by Graves, in the *Dublin Journal*, for the years 1841, 1842, and 1843.

While busily engaged in hospital work under Dr. Graves Mr. MacDonnell continued to perform other public duties. He was appointed Demonstrator of Anatomy in the Park street school, and he also delivered a course of lectures on Pathological Anatomy and Histology. While thus engaged he constantly supplied material for discussion before the Pathological Society of Dublin. Many of these specimens he had obtained in the post-mortem room of the Meath Hospital. In the numbers of the *Dublin Journal of Medical Science* many of these records are to be found; they are full of interest in the present day when the light of scientific research guided by such enthusiasts as Mr. MacDonnell has brought out many facts which were then observed but remained unexplained.

In April, 1844, Mr. MacDonnell obtained by examination the license of the King's and Queen's College of Physicians of Ireland. This, at the time, was considered a high qualification,

and was supposed to confer the right of using the title of Doctor of Medicine. This assumption by the College was subsequently disputed, and it was ultimately decided that the license of the College conferred no such privilege.

While thus fully employed in teaching, and as Dr. Graves' chief clinical assistant, Dr. MacDonnell found time to prepare a paper entitled "Contributions to the Diagnosis of Empyema with cases." This appeared in the March (1844) number of the *Dublin Journal of Medical Science.* It is a paper of great value, and many of the observations therein contained are original—notably, the condition of the liver in empyema, the accurate description of which in that disease had not been announced by any previous writer. A second paper from his pen appeared in the following November number of the same journal, entitled "Contributions to the Diagnosis and Pathology of Thoracic Diseases." This paper in reality is a clinical description of three cases of chest affections, the first being "Empyema with copious purulent expectoration." The second is "on the occurrence of crepitus in the lung after the absorption of pleuritic effusion;" and in the third will be found described the particulars of "a peculiar form of dissecting aneurism of the thoracic aorta." This latter is illustrated with a coloured lithograph. The year following Dr. MacDonnell published a paper on "a peculiar form of Disease of the Heart attended with enlargement of the Thyroid Gland, and protrusion of the eye balls." This was the first brochure which had appeared specially on this subject, but the author gives full credit to Dr. Graves for having published an account of this disease in one of his clinical Lectures which appeared in the *Medical Gazette.*

About this time the governors' of the University of McGill College, Montreal, determined to increase the number of Lecture-ships in the Medical Faculty, and a public advertisement appeared calling for applications for the chairs of Clinical Medicine and Surgery, Institutes of Medicine, Medical Jurisprudence, and Botany. Up to this period the subject of Institutes of Medicine had been treated of by the Lecturer on Materia

Medica. Dr. MacDonnell, who had many friends residing in Canada was induced to apply for the chair of Medical Institutes. He resigned his appointments in Dublin and sailed for Montreal where he landed in June 1845. He at once took status among his professional brethren. His appointment to the chair of "Institutes of Medicine" in the Medical Faculty of the University of McGill College was published the following month. At the annual meeting of the Medico-Chirurgical Society of Montreal, held in August of that year, he was elected Secretary to the Society. The month following he became associated with Dr. Hall, in the editorial management of the *British American Journal of Medical Science*, which connection he retained until March, 1847.

During the winter of 1845 and '46, Dr. Crawford, the then incumbent of the chair of Clinical Medicine was obliged to go to England with the Governor-General of that period, the late Lord Metcalf. This was in November, 1845. Dr. MacDonnell not only filled his own chair of Institutes of Medicine, but he performed the duties of Attending Physician to the Montreal General Hospital, and lectured on Clinical subjects during a great portion of the course in the room of Dr. Crawford. He was thoroughly conversant with his subject, his language was choice, and his fluency and clearness of description, but with all conciseness, was what, we as students, because the writer was at that time on the benches, had never before enjoyed. Then, again, at the bed-side, the instruction given was practical, and an appeal was made to our common sense, to learn and know the simple yet truthful operations of nature in the course of disease. Dr. MacDonnell continued to lecture on Institutes of Medicine until 1849, when he received the chair of Clinical Medicine, the late Dr. Crawford taking that of Clinical Surgery. This chair he ably filled for two sessions when he resigned He had previously been elected Attending Physician to the Montreal General Hospital. This position he likewise resigned as he had determined to leave this city and remove to Toronto. We believe that this change had been suggested in consequence of a vacancy in the Medical Faculty

of the University of Toronto, for which post the Doctor was an applicant, but about this period the Medical Faculty of Toronto was dissolved in consequence of the action of the Government of the day in omitting to provide for the continuance of the Medical Faculty of the University, in a Bill which passed before the Legislature. This resulted in a rapid return of Dr. MacDonnell to Montreal, and he desired to withdraw his resignation before the hospital board. as also that sent in to the Governors of McGill College. Unfortunately, the position held by him in the hospital as attending physician had been filled, and without a hospital appointment his chair of Clinical Medicine fell to the lot of a successor. This was unfortunate for the University, as it lost in Dr. MacDonnell the services of a most efficient teacher, and able Physician. These changes occurred about the year 1851. The want of a hospital appointment was sorely felt by him, and, as about that period, there were large public works progressing in the vicinity of this city, in the construction of the Grand Trunk Railway, and subsequently the Victoria Bridge, a few influential Irishmen determined to originate a hospital, to be named after their patron saint. This was carried out, and Dr. MacDonnell actively engaged in its organization, and ultimately became Surgeon to that institution. St. Patrick's hospital continued as an independent institution up to July, 1860, when it was closed, and the patients were transferred to the (at that time new), large and commodious building, erected by the ladies of the Hotel Dieu. This change once more left the Doctor without a hospital, inasmuch as the Hotel Dieu already had a staff of physicians and surgeons.

Dr. MacDonnell has always enjoyed the confidence of a large number of the leading families in Montreal, and in times of excitement from threatened epidemics the Government of the country sought his counsel and advice. In 1866, when cholera invaded Europe, and extended into Great Britain, a "Central Board of Health" was summoned to Ottawa. This was composed of the prominent men in the different cities in Canada, and Dr. MacDonnell was chosen as their President. With regard to his literary labours there is hardly a volume of

the Medical Journals published in this city from the year 1845 to 1863, which is not enriched by his pen. His contributions were clear, and bore the stamp of careful preparation.

Of late he did not publish any of his observations, but in conversation with him, shortly before the lamentable accident which terminated his life, he told the writer that he had in course of preparation a paper on the subject of Uterine Flexures. He was a most successful practitioner, and in Gynæcology had a reputation which extended beyond the boundaries of Canada.

We have thus far endeavoured, very imperfectly, to sketch the life of our old and respected friend; and we cannot do better in conclusion than give the remarks made in a letter which we received from a gentleman, who was the college chum of Dr. MacDonnell, and between whom there existed throughout life the closest intimacy and friendship. He says: "Of the many amiable qualities of my dear old friend, his kindly heart, genial manner, his irrepressible love of fun, his pleasant banter, (in which there was nothing that could hurt or sting,) these were characteristics alike of his later, as of his earlier years. These happy qualities which made him always so agreeable a companion, and won for him so many warm friends among all classes of society, were, it seems to me, only softened and mellowed by advancing years."

"Of the strong hold which he had on the affections of his patients I heard and I saw many proofs during the two or three sad days which followed his sudden and almost tragical death: none perhaps so touching as the choice floral wreaths and crosses which, with a few written words of strong sympathy, were with profusion poured into the darkened house, almost lighting it up with their strange brightness: loving offerings these, sent in many cases by his poorer patients, who thus made their first and only payment for professional services, kindly and freely given without hope of fee or reward, by him upon whose coffin these perishable memorials of affection were to be laid."

EDWARD MULBERRY HODDER, M.D., F.R.C.S., ENG.

Never has it been our mournful duty to record in so short a time the death of so many prominent members of the profession in this country. In rapid succession, Drs. Peltier, MacDonnell and Hodder have been called away, leaving a sad gap in the group of Canadian Medical men following immediately upon that earlier generation, comprising Digby, Widmer and others in Ontario, and Nelson, Holmes, Hall, Fraser and Sutherland in Quebec. To the men of this the second generation, it may be called, the profession in Canada owes much. As a rule they were men who, if not natives of Great Britain, had received their entire medical education at home and who brought with them professional ideas, of infinite advantage in a young country where Medical schools were being established, and the course of study laid down. Among these men was Dr. Hodder of Toronto, whose decease took place at his residence on the 20th, ult., after an illness of some months' duration.

An obituary notice in the Toronto *Mail* says that " he was the son of Captain Hodder, R. N., and was born December 30th, 1810, at Sandgate, Kent, England. He entered the navy in 1822 as a midshipman under his father, but only took one cruise, leaving the service at the expiration of a year, having a strong desire to study medicine for which profession he had a preference. Educated as a boy at Guernsey Grammar School, afterwards at St. Servans, France, he began his medical studies in London, under the late Mr. Amesbury, very celebrated as a surgeon, with whom he spent five years. At the close of his career as a student he passed the Royal College of Surgeons of England, 1834. He afterwards went to Paris, where he spent two years more in the study of his profession, and subsequently visited Edinburgh, and there, too, spent a considerable time in seeing the hospital practice of the then famous teachers of that city. He began practice in London, where he remained but two years, for thinking his prospects would be improved by removal to St. Servans, in France, he settled there for a time. His French home being too quiet for his tastes he visited Canada

in 1835, returning to France in a few months. For the next three years he practised his profession in St. Servans, when, having had a longing after Canada from the time he visited it, he left, never to return, and henceforth resolved to make his home in this country. He settled in the neighbourhood of Queenstown, in the Niagara District, where he carried on a very extensive practice for five years. In1843, he removed to Toronto, and continued to practice there up to the time of his death.

In 1854 he was elected a Fellow of the Royal College of Surgeons, England, and in 1865 a Fellow of the Obstetrical Society of London, and was at the time of his death and for some time previously one of the honorary local Secretaries.

In 1845 he received the degree of C. M. from King's College, Toronto, and M.D. from Trinity College in 1853.

In 1850 he established, in concert with Dr. Bovell, the Upper Canada School of Medicine, which that year became the medical department of Trinity College. For several years while Trinity College Medical School was in abeyance Dr. Hodder was a member of the Faculty of the Toronto School of Medicine, but on the revival of his old school in 1870, he was by the unanimous wish of his colleagues, appointed Dean of the Faculty, which position he held at the time of his death—having been reappointed in 1877 when the Act incorporating the School passed the Provincial Legislature. From 1852 to 1872 he was the leading member of the acting staff of the Toronto General Hospital and of the Burnside Lying-in Hospital, and at his decease was senior consulting surgeon to both of these institutions, as well as to several others of like character."

In the Canada Medical Association he always took great interest, and was elected President at the Halifax meeting in 1875. He was also a member of the Ontario Medical Council.

Of his professional character and reputation little need be said. He was the acknowledged leader of the profession in Toronto and in the Province of Ontario, a position which he had won by steady hard work during a period of 40 years. His ability and success as a surgeon and gynæcologist secured him

an extensive practice, and his opinion was mueh sought after by the members of the profession. He was a bold and dexterous operator, but believed in the supreme importance of after treatment. As a lecturer and teacher he was greatly esteemed by the students, his lectures being well and carefully put together, and delivered in a pleasant yet impressive style. Possessed of a fine presence and pleasing address, though sometimes decided, even brusque in manner, he was withal exceedingly generous and kind-hearted, and reminded one of the surgeons of the Abernethian time. The writer has personal knowledge of several acts of touching kindness towards patients done, quietly and unostentatiously, that the right hand might not know what the left hand did. Born and raised a gentleman, he had all those honourable instincts and finer feelings which render a man incapable of performing petty acts, or of resorting to subterfuge of any kind.

The naval experiences of his boyhood embued him with a strong love for aquatic sports, and it was mainly owing to his exertions that the Royal Canadian Yacht Club was founded, over which as Commodore, he presided for many years. His hospitality was of a kind which appears to be passing away, and many who may happen to read these words will recall to mind pleasant gatherings at his own house or the Yacht club.

For some months past he had been ailing, and when the writer of the present sketch saw him at Christmas last, an evident change had come; his step was no longer elastic, his eye had lost its fire, and there were indications, as he himself knew only too well, of cerebral degeneration, Though nothing definite could be ascertained, yet he felt, indeed stated, that it was the beginning of the end. Two weeks later he was seized with paralysis of speech and deglutition, with rigidity of the right arm. From this he partially recovered and was able to get about the house, remaining however aphasic. He became gradually, weaker, and died comatose.

Amid the cares and worries of practice few men have superfluous energy enough to devote time to literary work. In the files of Canadian Journals we find comparatively few papers

from his pen, and it is much to be regretted that the profession has not reaped the full benefit of his ripe wisdom and extended experience. It is to be hoped that his successor, or whoever may have access to his clinical records, will take the trouble to arrange some of them with a view to publication. His success as an ovariotomist was great, and he had operated oftener than any one in the Dominion. So far as we know the results in full have not yet been published. Latterly he had been much interested in the subject of the diagnosis of Ovarian Cysts, and had a paper partially prepared on the means of discriminating between these and moveable kidneys, of which he had met with several cases.

He was joint-editor of the first volume of the *Upper Canada Medical Journal*, 1851, and contributed to it several papers.

The following, so far as we can ascertain, are his published communications:

(1.) On purpura hæmorrhagica.

(2.) Case of Aneurism of the Arteria, media cerebri, rupture, apoplexy.—*British American Journal*, vol. II. 1846.

(3.) A case of Apoplexy in which Cæsarian section was performed with safety to the child.

(4.) Case of stricture of urethra treated by external incision.

(5.) Cases of Fistula in ano treated with injection of iodine.

(6.) Disease of the kidney consequent on disease of the bladder, in a child. All in *Upper Canada Medical Journal*, vol I.

(7.) Case of Dislocation of head of Femur. — *British American Journal*, vol. II, 1861.

(8.) Injection of Milk into the veins in Cholera—*Practitioner*, 1873.

This last paper gives an exceedingly interesting account of the first attempt made to inject milk in cholera. A more extended paper on the same cases appears from the pen of Dr. Bovell in the *Canadian Journal*, 1854.

At a general meeting of the Medical Students of McGill University, held on Friday, 1st February, the following resolutions were unanimously adopted:

Resolved,—That the students of McGill University express deep regret at the death of the late Dr. MacDonnell, and considering as they do his early connection with this University as Professor of Physiology, there is additional cause for regret at his loss. As students of Medicine, they cannot but revere the memory of one who has so materially aided in the acquirement of knowledge pertaining to their profession by his learned researches in various departments of Medical Science, thus throwing light on many dark points connected with medical diagnosis, being in the true sense of the word a great physician, who devoted some of his valuable time in alleviating the sufferings of the poor in the public hospitals of this city, for which he will be long remembered. They can thus imagine the void that has been left in the hearts of his bereaved widow and mourning family, and they sincerely condole with them in this the time of their deep affliction.

Resolved,—That the Medical students of this University attend the funeral in a body.

Resolved,—That a copy of these resolutions be sent to the family, and that the city daily papers and Medical Journals be requested to insert the same.

ALEXANDER CHISHOLM,
Secretary.

MEDICAL FACULTY BUILDING,
McGill University, Feb. 1st, 1878.

Personal.

A. F. RITCHIE, B.A., M.D., C.M., (McGill University, 1876,) and who has been acting as resident medical officer to the Brompton Hospital for Consumptives, passed the examination before the Royal College of Physicians, London, and obtained the license of the College.

HERBERT L. REDDY, B.A., M.D., C.M., (McGill University, 1876), passed his final examination before the Royal College of Surgeons, Edinburgh, and received the License of the College on the 31st of January, ultimo, also passed his examination at the Apothecaries' Hall, London, and received the certificate to practice on the 14th of February ultimo.

CHARLES H. MURRAY, B.A., M.D., C.M., (McGill University, 1876,) passed his examination at the Apothecaries' Hall, London and received the certificate to practice on the 8th of November, 1877.

CANADA

MEDICAL & SURGICAL JOURNAL

APRIL, 1878.

Original Communications.

VALEDICTORY ADDRESS

TO THE GRADUATES IN MEDICINE AND SURGERY,

DELIVERED IN BEHALF OF THE MEDICAL FACULTY OF McGILL UNIVERSITY.

BY ROBERT T. GODFREY, M.D.,

Professor of Hygiene, McGill University, Montreal.

MR. CHANCELLOR, MEMBERS OF CONVOCATION, LADIES AND GENTLEMEN:—

In accordance with our yearly custom, it becomes now my pleasurable duty to address a few parting words on behalf of the medical faculty of this University to the graduates in medicine and surgery of the session just concluded.

GENTLEMEN GRADUATES:—Your term of pupilage with this University having ended, you have received what you so faithfully and studiously devoted four years of your time to acquire: the degree just conferred of Doctors of Medicine and Masters in Surgery; and as your late teachers we congratulate you on the attainment of this well-merited honour, and we heartily welcome you amongst us as brother practitioners. But although the barrier which divided us as professor and student has in your case been this day removed, allow me to impress upon you the necessity of continuing to the end to be students—students of nature and her laws, a thorough knowledge of which is

essential to the successful practice of that profession into which you have just entered.

In taking an affectionate leave of you we may be permitted to offer a few friendly suggestions and words of counsel, such as age, experience and an interest almost parental, may reasonably be supposed to warrant. Although the tie between us as teacher and pupil is this day severed, be sure that a continued and deep interest in your future welfare and advancement remains with each one of us, and very naturally so: for who has a prouder right to watch over her children than those to whom this University has confided the sacred trust of their education.

Allow me to record with emphasis, that in addition to the most praiseworthy assiduity, you have as a class, by unwearied good conduct, secured the respect and esteem of each member of this Faculty. For some years past a marked improvement in the ordinary deportment of the young men attending the classes of this University, has been a matter of public notice. While much of this noticeable change may be due to greater earnestness in the discharge of your duties as students, in the various branches of science, dwelt upon and taught within these walls, a larger field for the acquisition of knowledge, more earnest and actual work to be gone through, and an honourable rivalry for a prominent place amongst your fellows; yet, I must be allowed to attribute this salutary change to the principles of temperance in all things, and also, in a great measure, to total abstinence, which is carried out by the majority of our under-graduates.

I do not desire, gentlemen, to dwell on this subject, as I am aware that these principles have been inculcated by each one of us, and by many an example of total abstinence is carried out to the full. I should fail in my duty, however, in these parting words if I omitted to assure you that it is only by steady perseverance in the practice of those principles that you can hope to attain success in after life. A clear brain, an unclouded eye, a steady hand are at all times indispensable to the Medical Practitioner. He should be ever ready for any emergency, as at any time he may be placed in the most trying position, one

in which the life of a fellow being may be imperilled by his neglect, or may be under Heaven, spared by his ready tact. What a position of responsibility then have we assumed? and what manner of men should we be? If, therefore, through our own folly and criminality we become enslaved to the debasing habit of inebriety, we cannot attribute failure in the practice of our art to ill luck or accident, but to the real cause, our own neglect, a neglect for which we shall be held accountable to our Maker.

For the last four years you have been occupied in acquiring those elementary principles, on which is based a sound practical knowledge of disease and its successful treatment. In the wards of the Hospital you have had ample opportunities of seeing those principles put to the test, and in the post-mortem room of studying those pathological changes which are seen to occur in the train of disease. All these great advantages are to you, so far as this school is concerned, at an end, and you are about to engage in the earnest duties of your life's labour. You must trust in future to your own unaided knowledge. Hitherto you have pursued your studies under the guidance of experienced teachers. The time has come when you must stand alone. No longer can you depend on the varied experience of other men. You will be expected at the bed-side to act with promptitude and with judgment; and although at the outset you may feel sorely the lack of experience, be not discouraged, and do not permit yourself to be cast down by seeming ill-success.

Our paths henceforth will diverge, it may be, widely, but the alumni of this University should ever bear in mind the duty they still owe to Alma Mater. We all, as it were, unite in forming a family circle, and should strive, to our utmost, to maintain the character and standing and preserve the honour of our common parent. Some changes in the curriculum of study have recently been made whereby greater facilities are offered to young men for the acquisition of practical instruction. I allude to the summer course. Attendance on these lectures, although not compulsory, will obviously be of great benefit to the student who avails himself of them.

I cannot allow this opportunity to pass without drawing attention to the increasing interest exhibited by the people of this Dominion in the subject over which I have the honor to preside. The laws of health are obviously of such importance to the human family that they should be very generally disseminated. There appears to be a decided inclination to pass over as a matter of no moment, at least by our Legislature, the urgent demands for the introduction of a Public Health Act. This is very much to be deplored, as we are fully aware of the large amount of preventable disease existing in Canada, and how it swells our mortality tables. Mortality tables did I say, gentlemen? Such, in fact, do not exist among us. As a people we are unable to compute the death rate of any one locality with anything like certainty or accuracy. While the Governments of other nations are, in the spirit of true conservatism, fostering and caring for the health and lives of their people; while in the counsels of the British House of Commons we learn that the motto of reform is "*Sanitas sanitatatis omnia sanitas*," we find that in our own Legislative halls the people's representatives are busily engaged in personal squabbles and party strife. How long this country will groan under this misrule of neglect we cannot predict; but let us hope that questions of vital importance to the welfare of the people of Canada may at no distant day receive the attention which their importance demands. You may be curious to know what all this has to do with yourselves as professional men going forth to engage in the work of benevolence which you have assumed. Everything. As has been remarked by the editor of the *London Lancet*: "State medicine ought to be an integral part of statesmanship." The influence of science comprehended under the term medicine, and the light it can throw on every public question in which physical and mental training, the modes of living, the condition of dwellings, the water we drink and the food we live upon—all these are subjects and matters with which as professional men, we have to do. There is scarcely a question of political economy upon which the science of medicine has not a right to be heard. It will be for you, gentle-

men, in going forth, to make these subjects a matter of careful consideration, and in due time make your influence to be felt in the Legislative counsels of the Dominion. Hitherto the experiences and teachings of science have been systematically ignored. The time must come, sooner or later, when the science of medicine will be recognized as not less a part of statesmanship than is law. The science of life, the preservation of health, which is so essential to intellect and capacity for labour, energy and industry; the knowledge of the mortality of communities and their causes, with a view to their amelioration or prevention; the comparison between the mortality and increase of a people, are all subjects of greater importance to the success of legislation than is a knowledge of the method of making laws and the obscure art of interpreting statutes. There can be no question of the fact that sanitary science is destined to hold a prominent place in the counsels of the country. The longer these facts are ignored, the greater will be the loss to the community, and eventually discredit must attach to any administration for such wilful and criminal neglect.

A wise, thoughtful, and well digested sanitary act will be found of greater importance to the people of this Dominion than a Pacific Railroad, and, as a matter of economy, it would result in a saving of both life and treasure. Millions of dollars are spent every tenth year in giving to the country a census report, which, on the question of vital statistics, is utterly worthless, and until we have introduced a proper system of enumeration of births and deaths we shall be unable to form any correct opinion on this all-important topic.

Quite recently it was proposed that the medical course should be made one of nine months, instead of as at present of six months' duration. To this strong opposition is offered, as it is believed, that it would entail extra labour on both teacher and student, not commensurate with the time spent by such a change. It is well known that in this young country many a worthy man is compelled to labour during recess, for the means to enable him to complete his college course. It is a proud boast in this Canada of ours that any position in the country is open

to the poorest children of the soil, and there are men among us, who occupy a distinguished position in the medical profession to whom the door of entrance would have been closed, had the regulations as proposed in this scheme of nine months existed.

Coming back to something more directly personal. For the first year or two after entering into practice, your professional engagements will not be excessively burthensome, but this should not produce despondency. Remember that

> "The heights by great men reached and kept,
> "Were not attained by sudden flight;
> "But they while their companions slept,
> "Were toiling upwards in the night."

Imitate, then, the example of those great men. With perseverance toil upwards in the night of obscurity, and even poverty, pursue the practice of your profession in obedience to your obligation of to-day *Caute; Caste et Probe;* and though you achieve neither wealth nor distinction, you will receive the esteem of those who employ you, and enjoy the highest of earthly blessings, the silent approval of a clear conscience. As was ably said on a similar occasion to the present in this hall, "your reward must principally be sought in the consciousness of having contributed to the welfare and happiness of your race, in the respect of your fellow men, and in the knowledge that you are humbly following in the footsteps of the great physician who, while on earth, went about continually doing good." The Diplomas you have this day received are a reasonable guarantee of your fitness to enter into the practice of the profession of your choice; if you never fail to supplement your other qualifications with the indispensable virtues of temperance, brotherly love and patience, I can scarcely err if I predict for you, individually and collectively, a full measure of success. Farewell.

MENTAL AND MORAL SCIENCE;

WITH SOME REMARKS UPON HYSTERICAL MANIA.

By Henry Howard, M.D., M.R.C.S., Eng.,

Medical Attendant to the Longue Pointe Lunatic Asylum.

(Read before the Medico-Chirurgical Society of Montreal.)

Mr. President and Gentlemen:—In reading Dr. Newman's "Grammar of Assent," I met with the following passage: "It has always appeared to me that treating on the science of religion was in one particular like treating on mental and moral science; every man can only speak for himself; and for himself every man has the right to speak; and he adds, that under such circumstances egotism is true modesty." I was glad when I found this statement made by such an authority; for I often felt ashamed of my egotism but could not see how I was to avoid it.

You all know, as well as I can tell you, that it is nearly impossible, in the present day, to take up a work on mental and moral science; or read even an article in a journal on these sciences and not find it set forth, either directly or indirectly, that the Christian moral law was opposed to the natural law, and I am free to confess to you that very frequently I thought, myself, that both laws were irreconcilable, yet I always felt that this must be impossible, as God was the author of both laws. I could not rest satisfied in this state of doubt, and so I determined to work out the problem, at least to my own satisfaction; and I shall endeavour this evening to prove to you that these laws are not opposed, and that the apparent irreconcilability has been due to many causes.

One great cause is that we are not, in all cases, certain that what we call a natural law is a natural law, and sometimes what we suppose, or wish to be, a natural law of our being, is nothing more than what is due to some *abnormal* state of our mental and moral organization, whether that abnormal state be hereditary, or due to some accidental cause occurring after birth.

It is not for us as scientists to go into the question of the

origin of evil, and I suspect if we did we would not make much of it. That evil exists, we know, and like everything else that does exist must have had a beginning; our simple duty, I take it, is to deal with it as we find it existing in man, and we may assume that if it never had a beginning, and did not continue to exist there never would have been any occasion for a moral law; the natural law would have been all-sufficient for man, if there was no evil in his organisation; but as we are, so to speak, such a compound of good and evil, a moral law became actually necessary for our guidance, and he who gave the natural law, was, in justice, obliged to give a moral law in man's altered condition, but then he could not give one law in opposition to the one he had already given. That we are composed of good and evil requires no proof from me; every man knows it of himself; every man knows that he is, as it were, a double, one good and one evil, contending each against the other. Every man feels the same as St. Paul did when he said: "When I would do *good* evil is present with me." True, it is, that the evil, that is the criminal neurosis, in some is greater than in others, therefore it is that we form such unjust judgments of each other.

Another cause of this apparent irreconcilability between the natural and the moral laws, is due to the fact, that no matter how ignorant a man may be of natural laws, nearly every man fancies that he is capable of explaining and expounding the moral law; consequently there have been and are, a thousand different sorts of moral laws floating throughout the world. Some naturalists have taken advantage of this anomalous state of affairs, because it suited their card, to condemn the whole moral law, and by their absurd proceedings have succeeded in getting up a cry against mental and moral science, as dangerous to morals, so that men, from whom we should expect better things, talk such nonsense as to warn their hearers to guard against *evil* science, forgetting, or not knowing, that science is truth, and that which is not truth is not science. There is no manner of doubt, but that there have appeared amongst the naturalists men of much more scientific knowledge than amongst

the moralists—in fact the naturalists are all men of science—whereas the majority of the would-be moralists know nothing whatever of science. Indeed, very many of them are not aware that the knowledge of the moral law is as much a science as is the knowledge of the natural law, and that no man is capable of teaching either of these laws without a knowledge of both; and the man who attempts to do so, only succeeds in rendering himself ridiculous to his intelligent hearers.

There is no man living that knows all the natural laws, for nature has not yet unfolded all her grand secrets, nor will she do so except to the hard-working, persevering scientist. But of these we do know we have sad experience every day, that no man can break them and not suffer dire consequences. Therefore, it behoves us to well consider if there is any moral law claiming our obedience, the acceptance of which would cause us to break the natural law.

Of course in this paper, upon mental and moral science, I have only to deal with these natural laws which directly are borne upon by the teachings of the moral law.

Let us see what these are:

First, it is a natural law for every human being to recognise and believe in the supernatural. I need not go into proofs for it is an established fact, that no peoples have ever yet been discovered, that did not recognise the supernatural,—all, in some way, recognise the supernatural—that it is a power, not of, but greater than man, a power that controlled, not only man, but all the universe. There is no moral law, that I ever heard of, opposed to this natural law.

Self-preservation is a great natural law; indeed it has always been called the first law of nature. Is there any moral law opposed to it? None that I know of. On the contrary, the moral law supports to the full this natural law. But, says the casuist, what of the Christian martyrs, why did they break the natural law, in obedience to a moral law and give up their lives? The answer is very simple; they actually obeyed the natural law of self-preservation, for in giving themselves up to a temporal death, it was with the belief that they preserved to themselves

everlasting life. But there is a moral law that says, "Thou shalt not steal," and to steal, is take of that which is not thine, but the property of another. How about the man who *must* steal, or die of starvation? Which of the laws is he to break? neither; in this case the moral law of "Thou shalt not steal." is not applicable to him, morally speaking. The starving man who *cannot* otherwise obtain food is perfectly justified in taking it from wherever he can obtain it. Our Saviour himself gave us an example in this when he and his disciples plucked the ears of corn belonging to another, and ate the grains; not, mind you because that they were starving, but simply that they were hungry. And it is a remarkable fact that his enemies did not accuse him of theft, but that he broke the Sabbath, as if a hungry man should not eat on the Sabbath as well as upon any other day. Of course, as God, he had the right to take of that which was his own, for all and everything was his; but he was then acting as man; moreover his accusers only looked upon him as a man.

But the moral law says: "Thou shalt not kill," and it very frequently occurs that a man must kill to save his own life; and under such circumstances killing is perfectly justifiable. So there is no moral law contrary to the natural law of self-preservation.

Procreation is a natural law, from man down through the whole animal and vegetable creation, it is actually necessary for the perpetuation of all things. And in all things we find, that like produces like, kind produces kind; in all things any difference that may exist it is only in degree not in kind, that is, instead of being normal it is abnormal.

Is there any law opposed to this natural law, of procreation, I mean any moral law opposed to it? I know of none. The moral law does not make it obligatory upon all men, but leaves man what he is according to natural law, a free agent, to either procreate or abstain from procreation if he so pleases. The moral law, it is true, confines man within certain bounds, as to procreation; it does not allow him to procreate like the lower order of animals, for many scientific reasons. First, a man to

procreate in this manner would eventually destroy his health, and thus break a natural law, by being the cause of his own death, or if he should have been born with an insane neurosis his life of debauchery would render him a lunatic. Every alienist knows that excessive sexual indulgence has more to do in filling up lunatic asylums than any other cause, save the one of self-pollution. Again, such unlawful procreation is injurious to the welfare of the state, for it would destroy family, and family ties, and the love of offspring, two natural laws which are the very safeguard of society. Consequently the moral law of monogamy is in perfect accord with the natural law; whereas polygamy is not only a breach of the moral, but a breach of the natural law. As I have already said the moral law is not opposed to the natural law of procreation, but it does not make it obligatory upon all; it leaves a man free to marry and procreate, or, if he so pleases, to remain a celibate, and celibacy, we know, is not injurious to a man either mentally or morally.

I know that many sentimental writers, judging of others by themselves, conceive that it is impossible that anyone could lead a life of chastity and purity, but these writers forget, or do not know, that men differ as much in their mental and moral organization as they do in their personal appearance, and what would be impossible for one would be quite possible for another. In fact, these writers do not know that sexual desire is dependent upon a man's cerebellum, as much as his honesty is dependent upon the state of his parietal cells, or his wisdom upon his frontal.

One great standpoint taken by those who are opposed to celibacy, is hysterical mania. They assume that this fearful disease is due to sexual desire, and I can well excuse many who have seen the actions, and heard the language of these insane creatures, mistakng *effect* for *cause*. Hysterical mania is not caused by sexual desire, but their terrible sexual desire is caused by their insanity; some disordered state of the digestive or uterine organs, producing irritation of some part of the ganglionic system, causes hysteria, which is followed by irritation of the cerebellum, producing moral insanity, which develops itself in

strong sexual desire, in time this irritation spreads to the cells of the cerebrum, and the consequence is violent mania: a mania which renders these poor *erotic* creatures so disgusting to attendants by their vile language and unchaste actions. And, gentlemen, let me tell you that above all cases that can come under the treatment of the medical attendant of a lunatic asylum, hysterical mania gives him the greatest amount of trouble. Again, with regard to those who, writing upon hysterical mania, mistake effect for cause, they write as if ignorant of the fact, that the impure female who gratifies her desires by leading a life of impurity, is as frequently the victim of hysterical mania as is the chaste female who does not break the moral law. Moreover, married women and mothers very frequently are the victims of hysterical mania. I have at this moment four married women, mothers, hysterical maniacs; one of whom was placed under my care by my friend Dr. Reddy.

In justice to you and myself, I cannot conclude this part of my subject without alluding to the moral teachings of the Catholic Church. I would simply say that the Catholic Church does not oppose the natural law of marriage and procreation; on the contrary, she raises marriage to the dignity of a sacrament, and, as I have already shown, she is purely scientific in approving and sanctioning monogamy, and opposing her moral force to polygamy. She calls upon no man or woman to remain unmarried and lead a life of celibacy; but that if they remain unmarried they shall lead a life of chastity and purity. And in this also she is perfectly in accord with the natural law. True, that the Catholic Church leaves every man free to marry, or not to marry, and, for what she conceives to be wise reasons, chooses her priesthood from those who choose a life of celibacy, but then there is no obligation upon any man to become a priest; every man doing so enters that calling with his own free will.

With regard to females who chose a celibate life, the Catholic Church simply provides that those who do not wish to remain old maids in society, can join a religious community, either as teachers, or for the purpose of nursing and taking care of the sick and poor. I would not insult your intelligence by making

an apology for these remarks, for you all know well that I have made them in the cause of scientific truth, and to prove that there was no moral law against the natural law of procreation.

Love of offspring is a natural law. I believe no one pretends to say the moral law is opposed to it.

Love of persons, love of freedom, love of knowledge, love of happiness, love of justice and ambition, are all natural laws, and all morally lawful when guided by reason and kept within proper bounds; because if not guided by reason and kept within proper bounds we would be breaking other natural laws. For example, if a man's ambition would lead him to neglect his family and injure his own health, he would be guilty of a breach of both the natural and moral law.

Fear, envy, jealousy, hatred, revenge, are those natural to man, can they be called natural laws? I do not believe they can. I believe these characteristics in man are the result of an abnormal mental and moral organization, hereditary, and generally intensified by false teachings of the moral and natural laws.

I think I have now disposed of all the strongest standpoints taken by those who wish to make it appear that to obey the moral law would, in many instances, be to break the natural; and, as on purely scientific grounds, there is no profession so interested in the natural and moral laws as is the members of the medical profession: for our whole science is founded upon natural laws, it is well that we should know that we cannot err morally when we are acting in accordance to natural laws.

But it is well that, as far as it is possible, we should make ourselves sure that we are obeying the natural law; for notwithstanding the great advancement that has been made in medical and surgical science, more particularly within the last quarter of a century, we must all, to a very great degree, plead ignorance of natural laws, and that, consequently, we do not realize the terrible consequence of their breach. We know, for example, that gout, cancer, phthisis, insanity, good and evil came to those that possess them by inheritance, but we never think of asking ourselves the question, are these things the result of breaches of natural laws by our progenitors? We act as if it

were quite natural that such should be the case, and that there was no possibility of escaping from them. Most certainly there is no possibility of our escaping from what we already possess. But, then, can we not do something to guard future generations? Can we not give scientific proof to the drunkard and profligate, that his offspring will inherit his vices? Can we not give scientific proof to the married woman that her child's mental and moral organization will depend very much on what her life is while carrying that child in her womb, and the nurturing and training of it after she has given it birth? Can we not daily impress upon teachers that there can be no system of teaching applicable to all mental organizations, and that what is healthy mental food for one is death to the other? Can we not impress upon these would-be moral teachers, that their teachings are driving people to the lunatic asylums, and can we not, at least, make some effort to convince society that no man is capable of teaching the moral law unless upon scientific grounds. And that if he pretends to teach the moral law he must know something, at least, of the natural law. I do not mean that every man is to go to work and learn mental and moral sciences, no more than that every man should learn practical astronomy; but mental and moral science should be so kept before society that all would understand it, at least as well as they do astronomy. The most illiterate man knows that the world is round, that it turns upon its own axis; that although the sun appears to move, rising in the east and setting in the west, that yet it is a fixed body and does not move at all. But the same man does not know that the bad drainage in his house, and the damp in his cellar, has caused the death of his wife and children; he does not know that air and light are necessary for health; he does not know that darkness and impure air will so destroy the mental organization as to render man an imbecile. Such a man will tell you that his wife and children died because it was the will of God, as if God specially willed their death. Tell such a man that it was the will of God, just so far, and no farther, than that he had established irrevocable, unchangeable natural laws, and that no man can break these laws and not suffer dire con-

sequences,—twenty chances to one but that the man would think you were speaking blasphemy,—and he would go to some moralist and report what you said, who in turn would be warned against you as a dangerous man. When I see an old person die out calmly and quietly, without pain or suffering, I can well understand that they are dying in obedience to natural law and according to the will of God. But when I see infants, children, and young persons dying, I say it is because of some breach of natural law, either on the part of the person or through the fault of their progenitors, whether through ignorance or otherwise. I might be as well told that the farmer that neglected to cultivate his land had bad crops by the will of God, and that the house burned down by an incendiary was the will of God also. Therefore, I hold that is the duty of every conscientious medical man to take every opportunity he possibly can to impress these scientific truths upon society. But the fact is we have much to learn ourselves, and there will always be something still more to learn no matter how much we may know. The present generation knows more than the past, and the next generation will know more than we do; and so will truth advance till science must be recognised as the true basis of civilization. And when I say science, I speak particularly of mental and moral science. Yet, I would not have you understand that in these remarks I exclude religion; on the contrary, I do not believe these sciences can be taught except in connection with religion. The natural and moral laws are truly religious subjects, and as scientific as they are religious. Therefore, as science is *truth*, and religion *truth*, science and religion is one and the same. So no religion can be true that cannot bear the test of science.

I said as medical men we had much to learn scientifically, and I now state what I conceive we most require, is a better knowledge of anatomy, physiology, and pathology. Fortunately for us all, we have many men devoting themselves, with praiseworthy efforts, to the study of these particular subjects, The hard-working microscopist is demonstrating to us, every day, something new: something that we did not know before in the

anatomy of the brain and its appendages, and in the anatomy of the ganglionic system. I am proud to admit how much I have learned on these subjects from our friends Drs. Osler and Fuller; also from them and many others for the pathological specimens that have been brought before us. As physiologists we take hold of the knowledge thus acquired, and by the careful study of disease, by searching for cause when we find effect, we, in our turn, discover what is the physiological use of these minute parts that the anatomists have shown us to exist, and poor suffering humanity derives the benefit of our united labour in our scientific research. And we, if we have nothing else, have the conscientious conviction that we have done well.

Let me give you an example of what our united labour does. The anatomist discovers a small nerve running in the sheath of each artery, he knows it cannot be there for nothing, it must have a use. The anatomist and physiologist finds that its use is to cause the muscular fibres of the vessel to contract, and thus, as it were, help the heart to propel the blood through the vessels. We take advantage of this fact in the treatment of disease. The medical man finds his patient bleeding to death from hæmorrhage of the lungs or uterus, and gives an hypodermic of ergotine to arrest it, and succeeds; now there can be no doubt but that the bleeding vessel is thus caused to contract by the direct action of the vaso-motor nerve, which has been acted upon by the ergotine—a medicine having a specific action on the sympathetic nerve, and particularly upon that portion of it we term the vaso-motor nerves. For years the specific action of ergot upon the uterus has been known—long before we knew anything of the vaso-motor nerves—but the physiology of these nerves, I presume, has shown us how it does act, for that it must be through these nerves, is evident from the fact, that the hypodermic of ergotine, arrests hæmorrhage of the lungs just as rapidly as it does hæmorrhage of the uterus. For my own part, I do not see why it should not also arrest cerebral hæmorrhage, and I mean to try its effect in such a case the first opportunity I have. It certainly should act as rapidly as the application of cold water to the cuticle; though I do not mean to say that in such a case I

would neglect the cold water, at the same time I certainly would try the hypodermic of ergotine. We have lately had a very interesting paper from Dr. Donald Baynes, upon electricity as a therapeutic agent, and I presume that when it arrests hæmorrhage, it is by its action on the vaso-motor nerves. No doubt we have much more yet to learn of this important part of the nervous system, that time with hard study will reveal to us.

You will remember that in one paper I read before you, I described certain symptoms to be found in some cases of insanity, but I did not pretend to account for these symptoms. I told you that if you took hold of both wrists of the patient, one in each hand, feeling the radial arteries with your right and left hands, at the same time, you would find that the pulsation in one wrist came before the other. It was hard to understand how this could be, seeing that the pulsation in each wrist was caused by the heart's action, and should be equal in both. Now I consider we can understand this anomaly when we know the physiology of the vaso-motor nerves. It appears to me easy to comprehend, that in a case of mania there may be irritation in some part of the ganglionic system, causing through the vaso-motor nerves, a more rapid action of the pulse on one side than on the other, or a slower action on one side than on the other. This appears to me to be a feasible way of accounting for an anomaly otherwise in omprehensible.

In papers that I have read from time to time before this society, I have stated that man's mental and moral organization was his inheritance, whether it was good or bad, or good and bad, and that consequently he was not responsible for it. I stated that mind and body were one, and thought was the product of the mind, and under many circumstances involuntary; that it, thought, was subjective but received food from the objective through the medium of the senses. That the food thus supplied in childhood and youth, parents and teachers were responsible for; that the mental food provided in manhood we ourselves were responsible for, because we are free agents and have a free will, and can ourselves choose our mental food. In connection with the fact that mind and body are one, I beg here to

express the great pleasure an editorial in the CANADA MEDICAL AND SURGICAL JOURNAL for February gave me. It is headed "The Curability of Insanity," and recognizes the fact that mind and body are one, in the following sentence: "The organ of the *mind* the *brain*." I say this gave me great pleasure, for, if I am not much mistaken, I was one of the first, on this continent at least, that ever propounded and proved that scientific fact, in a paper read by me before this society, on the 3rd of December, 1875, said paper is published in the *Medical Record* for January, 1876, vol. iv. There were very few at that time to support my views on this question, though very many since; and some there were would-be naturalists, who spoke pretty hard things of me for the views then set forth. However scientific truth always prevails

In some of my papers I have also stated that we could easily account for all the crimes that were daily committed, by remembering what man's mental and moral organization was, and the sort of mental food it was provided with, particularly amongst the poor, and from these facts I drew the conclusion that it was impossible to make laws equally applicable to all persons, under all and every circumstance, and that if society would see crime diminish it must do more to diminish poverty and all its accompanying miseries, provide some more pleasurable objective food for the eye to rest on, if only clean streets and a green tree. And that this would be found a better remedy as a preventive to crime than punishment. I never said that there should not be justice meted out to the true criminal by punishing him; but I have defined the criminal to be a sane man who committed crime by the consent of his will, for that every man was equal in this respect, that all had a *free will*; but, unfortunately for society, there are men of bad, as well as "*men of good will*," and some whose impulse is stronger than their will.

At various times I stated that I conceived insanity to be an hereditary disease, and that the latent seed was caused to break out in some form of insanity by any exciting cause, and that the chief exciting cause was mental suffering which injured the vital power or nervous force, and that one chief factor of this mental

suffering was the present high-pressure system of education. Consequently there could be no system of education applicable to all.

I said I believed in a criminal hereditary neurosis as firmly as I believe in an insane neurosis, with this difference that we all had the criminal neurosis: only some to a greater degree than others. I pointed out the great difficulty there was in diagnosing some cases of insanity, and very frequently it was more difficult to prove a man *sane* than it was to prove a man insane. I have, in my last paper on the Medical Jurisprudence of Insanity spoken to you of the necessity there was for a law of lunacy, and recommended that these views should be brought before the Legislature; and I am pleased to see that the Hon. Mr. Chapleau has moved in the matter in the Local Assembly, and brought in a bill for the more speedy transmission of lunatics into asylums; and I this day had the honor of receiving a letter from the Hon. Mr. Laflamme, Minister of Justice, paying me a very handsome compliment upon my paper on the Medical Jurisprudence of Insanity, and promising me to bring up the subject during recess, and be prepared to move in the matter when Parliament again meets. I mention these facts, gentlemen, because I am fully convinced that the attention given to my paper by these honourable gentlemen, is due to the fact that my views were endorsed by the Montreal Medico-Chirurgical Society.

Much stress is laid by some writers as to what constitutes the cure of insanity, some arguing that, should a third, or a fourth attack occur, there has been no cure. This is simply an absurdity. If a medical man treats a patient for pneumonia, pleurisy, peritonitis, or acute rheumatism, and makes a cure, he does not engage that his patient will never have the same disease again; on the contrary, he warns his patient that the same cause which produced the first attack will likely produce a second. And if, after some months, or years, a second should come, he will not admit that he did not cure his patient in the first instance. And if his patient should happen to be an hospital patient, he will enter him as a new case when he is admit-

ted a second time. At present I have in the asylum at Longue Pointe, two men whom I treated and cured in the asylum at St. Johns. The first was with me four months when I discharged him; he remained well, earning bread for his family for twelve years. He will soon be discharged again. The second is only in the asylum the last five days. When first attacked he remained with me three weeks: I discharged him cured; he remained so for six years, when he got the second attack, during which time he became married a second time, and had a second family. Now, surely I have as good a right to claim a cure in these cases as would a medical man who cured a case of pneumonia. Dr. Howard cured me four different times within ten years, of what he termed bronchitis with the asthma of gouty men. Suppose in time I should get another attack, which is more than probable, and in the end die from an attack, does it follow that he did not cure me in the four first attacks? The fact is, that physically, as well as morally-speaking, we have all some weak points in us that we only discover when it shows itself from some accidental cause. If by the cure of insanity is meant that a person recovering from an attack of insanity will never be subject to a similar attack, then, indeed, there is no case of insanity cured, no more than there is a case of gout, or any other hereditary disease! and it is most true that the number of recoveries under the very best of circumstances, are very few comparatively speaking. For myself, I find that daily the chances are becoming beautifully less.

GENTLEMEN,—Any statement that I have heretofore made before you respecting insanity, and mental and moral science, additional study and experience has not caused me to change my views; and should increased experience cause me to change my views, in the future, I will not be ashamed to tell you so.

In preparing this paper for your consideration, my great object was to prove to you that the natural and moral laws were perfectly reconcilable; and that the great cause of poverty, crime, suffering, insanity, other diseases and early death, was the breach of natural laws, either by our progenitors or ourselves. Moreover, that we all had yet very much to learn of both

the natural and moral law. In each and all of my papers I have carefully adhered to mental and moral science, as far as these sciences were understood by me, without in any way wishing to *force* my views upon any of you; although, of course, I should he pleased to convince you of the truth of my views.

I fear that this paper has been rather wearisome, and not as interesting as it might have been made in other hands. However, the subject itself is one of great interest.

I will conclude by expressing my convictions, that if bigotry, prejudice, and fanaticism are ever to be replaced by equitable justice and charity, it must be done through a wide-spread knowledge of mental and moral science.

FURTHER OBSERVATIONS ON DIPHTHERIA;

BY FRANCIS J. SHIRRIFF, M.D., L.R.C.S., Eng.,

Huntington, P. Q.

Since my previous communication regarding Diphtheria, written 4th January last, the disease has continued to prevail, although not so extensively. I have attended a number of cases, some of them severe. The same treatment has been pursued, and with uniform success. I have seen three cases which proved fatal; in two of them, I was called in as consulting physician; one died of an affection of the trachea, for whom nothing could have been done; the other died of septicæmic poisoning and hæmorrhage. The other case had been ill over a week; nothing had been done for five days. The throat was filled with a fœtid. black, putrid mass, with a brown fluid flowing from the mouth and nostrils. Next day hæmorrhage set in, which soon ended fatally. Death in this case was evidently caused by the membrane becoming putrid. The soft parts beneath became also affected, ending in fatal hæmorrhage.

I have learned a number of facts regarding diphtheria which are very important: First, that the disease is always caused by a specific contagion, spreading from one person to another, either by personal contact or from articles of clothing: in a

similar way to scarlatina and other zymotic diseases. That it does not arise from dirty cess-pools, rotten carpets, &c., although I am willing to admit that individuals whose blood is filled with emanations from these substances will be more likely to be affected by the contagion, and have the disease in greater severity. The period of incubation varies from seven to ten days. Certain general symptoms, such as chill, headache, &c., always precede the sore throat. I have seen several cases which have been exposed to diphtheria here, furnish symptoms lasting one or two days without very sore throat, but who seem capable of giving true diphtheria to others.

I saw one man aged 50 who had all the symptoms without any sore throat, and who had been in close attendance upon a grand child who died. A week after his slight illness a son of his had an attack, and a young man aged 16 at the same time had a severe attack, and he had been in the habit of associating with the old man, one night lying in bed with him, and smoking from the same pipe. Many have diphtheria so slightly that they are not aware that much is the matter with them, and continue their avocations, thus unwittingly spreading the disease. This is more particularly the case with children attending school. During the past six months there must have been over 200 cases in this place, and in not one has the disease been known to return, at least so far as the other medical gentleman and myself know, and I have been making particular enquiries. I therefore feel confident, that like scarlatina, &c., the disease is not likely to return to the same person for at least many years.

I will relate what happened in one family, which shews clearly the protection those possess who have recently gone through the disease. In the month of October last four little children, members of one family, had each diphtheria, a few days intervening between each case. Their mother, a lady about 40 years of age, attended them at the time, swabbing their throats regularly. They all recovered, their mother remaining unaffected. Three months afterwards they visited a family who had a girl, aged 11, very ill of diphtheria. In about ten days she had a very severe attack, apparently caught from visiting the sick child. The

children were in the room with her constantly, having no one else to look after them. It is nearly a month since Mrs. W. recovered, and the children still continue in perfect health, and have shown no symptom of disease. I could relate several cases of nearly a similar character. Many escape the disease although fully exposed, and they catch it from a very slight exposure. One of our Doctors here had been visiting patients all winter and remained well, and once when swabbing a throat the patient coughed, and a piece of membrane flew into his mouth, but he still remained unaffected. Lately he made a friendly visit to a young man, about his own age, and who had a pretty severe attack. A week afterwards he was seized with diphtheria in its usual form.

In my former article I neglected to give what I believe to be the rationale of the treatment. The swabbing material consisting of No. 2. tinct. of iron, sulphurous acid, carbolic acid and glycerine, destroys the morbid matter contained in the false membrane, and also prevents its decomposition. Its frequent application is necessary to keep up its antiseptic effect, as it must be washed off by the swallowing of liquids. Next, the internal medicine, consisting of chlorat. potass. tinct. ferri, mur. and glycerine, and water taken between the periods of swabbing acts as an antiseptic, but being swallowed it is absorbed and kills the morbid matter contained in the blood, and by being continued even after the recovery prevents the sequelæ which sometimes follow diphtheria. The cold water application I consider of great importance. It keeps down congestion, and prevents the further formation of the membrane, and also favors its separation. When diphtheria breaks out in a family, I make all the other members use sulphurous acid freely, as I believe it has a powerful effect as a preventive, by killing the contagion as it enters the body. I also direct the rooms to be fumigated regularly by burning sulphur on hot cinders. This precaution I constantly recommend, as I believe it tends to prevent the spreading of the disease.

Reviews and Notices of Books.

Reports on Diseases of the Chest. — Under the direction of HORACE DOBELL, M.D., &c., Consulting Physician to the Royal Hospital for Diseases of the Chest, &c., asssisted by distinguished coadjutors in different parts of the world. Vol. iii., June 1st, 1876, to June 1st 1877. 8vo. pp. 438. London: SMITH, ELDER & Co., Waterloo Place, 1876.

In the advertisement to this volume we learn that these reports will no longer be issued each year, but at such time as there is an accumulation of important facts having reference to the anatomy, physiology, morbid anatomy, pathology, diagnosis, etiology, materia medica, therapeutics, climatology, &c., and their bearing on the thoracic organs or their immediate associates, then will they be thrown into book form, and issued as a continuation of this series; and it is hoped this collection will form a comprehensive and valuable book of reference on Diseases of the Chest, as well as afford to the student an epitome of modern discovery and research.

The first article in this volume is from Japan, the report being furnished by Mr. William Anderson, Professor of Surgery and Anatomy, Imperial Naval Medical College, Yeddo. Mr. Anderson commences his report with an interesting sketch of the condition of the science of medicine among the Japanese, prior to the establishment of schools of medicine on the European plan. He also gives some account of the climate of Japan, physical conformation of the people, their habits of life and the food they live upon, as he fully recognizes the importance of some knowledge of these particulars, before giving a description of the diseases peculiar to a country so little known to the outside world, as is Japan. This forms a most interesting paper, and is included in the first section of this article. In section II. the author gives a general description of the diseases of the circulatory system, and of those of respiration. On the subject of parasitic disease of the heart, the author states that no cases have as yet been reported in the human subject, inasmuch as investigation is obstructed from the difficulty of obtaining

post mortem examinations. He describes, however, one of the cælelmintha which is known to be destructive to dogs and other animals, producing sudden death; on examination, the right ventricle has been found to contain a mass of whitish, semi-transparent worms, each worm having a diameter of half a line to a line, and rolled up into a kind of ball. These parasites have been found in the pulmonary artery and lungs producing embolic masses. It is supposed that these worms gain entrance into the body of animals by their drinking water from ditches, rice-fields and other impure sources. He hints at the probability of a similar affection occurring in the human subject, as it would appear that sudden death is somewhat common amongst the Japanese, but remarks that no positive evidence can be given owing to the difficulty of obtaining permission to make post-mortem examinations. This very interesting report is followed by one from China, furnished by Mr. R. A. Jamieson of Shanghai. From this report we learn that primary chest affections are comparatively rare among foreigners in China; on the other hand, secondary lung complications, arising in the course of endemic fevers are of frequent occurrence. The author touches upon the communicability of tubercular phthisis, and he reports a striking case which bears on this question. Dr. John Dudgeon, of Pekin, gives an interesting account of the customs of the Chinese, the mode of warming and lighting their houses, although glass is now being extensively introduced, yet the use of paper as a substitute is still quite common. The principal factor in the health of the Chinese is their open out-of-door life. The various trades and callings are carried on in the public streets, and even in their work-shops, the entire side or front is open and fully exposed. Dr. Dudgeon remarks that the Chinese are almost absolutely free from heart disease and disease of the blood vessels, fatty degeneration is never met with, and delirium tremens is unknown in China amongst the natives.

Of diseases of the chest the acute forms are very rare, as is also phthisis. The question of the supposed antagonism between malarial exposure, and the development of tubercle is discussed, and some remarkable facts in support of this supposed

antagonism are given. In speaking of tea used as a beverage, he believes it to be a promoter of health and happiness. He remarks: "the use of boiling and boiled water, either alone or with a little tea in it, is a characteristic of the people, and has been productive of much good, and of the prevention of much disease. The astringency of the tea is a corrective against dysentery and diarrhœa, and the boiling of the water obviates typhoid fever, diarrhœa. calculus, and other affections."

The report from British Kaffraria is from the pen of Charles Egan, B.A., T.C.D., M.R.C.S. This interesting paper was published in the *Medical Times & Gazette*, in August of last year, and is familiar to our readers. The author accounts for the greater frequency of chest affections among the Christianized Kaffir as compared with his wild brother. The wild Kaffir seldom wears any other clothing but a blanket, when he gets wet on returning to his hut he throws off his wet garment and lies before a fire naked, whereas the christianized Kaffir uses European clothing, and when he gets wet to change his clothing is too great a trouble, so that he lies down as he is, sleeping in his wet clothes and thereby becomes more subject to bronchitis, pneumonia, and other affections of the lungs.

We have thus selected the reports from those countries which are comparatively unknown as regards these diseases, and given our readers a sketch of the work. The same scheme is to be found throughout. The other countries reported on are Canada, Australia, the United Kingdom of Great Britain and Ireland, United States of America, Austria, and Hungary, France, Germany, Italy, Russia and Spain. We trust that the announcement that this work will be discontinued as an annual, does not proceed from a lack of support, such an inference would almost follow, and this becomes a conviction when we see such an important and valuable serial, as was the *British and Foreign Medico-Chirurgical Review*, permitted to languish and cease publication for want of that support which it should have received, after a successful career of some thirty years.

Dr. Dobell has given to the profession in these reports a most valuable collection of facts in reference to diseases of the

thoracic organs in the various countries in the world. These, as we before remarked, are not attainable in any other form, without reference to a large number of periodicals, entailing very considerable research and much loss of time. We commend these volumes to our readers. They can be obtained by ordering through Dawson Brothers, St James Street.

Landmarks, Medical and Surgical.—By LUTHER HOLDEN, F.R.C.S., &c., Surgeon to Saint Bartholomew's Hospital. From the second English edition. Small, 8 vo., pp. 128, Philadelphia: HENRY C. LEA, 1878.

These landmarks first appeared in the Saint Bartholomew's Hospital Reports, and the object the author has in collecting them into book form, is to afford the practical surgeon and student of medicine an opportunity of using to advantage all his senses. The student is advised to educate his observation by carefully examining everything appertaining to the normal living body. The position and relation of all the organs—touch, hearing and sight, are the senses which should be freely employed, and without the exercise of these senses the physician or surgeon will be unable to determine with accuracy any departure form a healthy standard. This little work is a most valuable collection of plain, simple and practical hints; it contains instruction which will be invaluable to the busy practioner as well as to the student of medicine, and we heartily commend it to our readers. It is to be had at Dawson Bros., St. James Street.

A treatise on Gonorrhœa and Syphilis.—By SILAS DURKEE, M.D. Sixth edition, 8vo. pp. 468. Philadelphia: LINDSAY & BLAKISTON, 1877.

The only alteration or change in this edition from the one which preceded it is the date on the title page—word for word, page for page, it is the same—and many important subjects more recently discussed, and somewhat illustrated by Jonathan Hutchinson, and others, on the subject of syphilis, are entirely passsed over as beneath the notice of *this high authority*. *Nemo potest nudo vestimenta detrahere.*

The Science and Art of Surgery; being a treatise on Surgical Injuries, Diseases and Operations. — By JOHN ERIC ERICHSEN, F.R.S., F.R.C.S., &c., &c., revised by the author from the seventh and enlarged English edition. Illustrated with eight hundred and sixty-two engravings on wood. 8vo., Vol. I. pp. 947; Vol. II. pp. 989. Philadelphia: HENRY C. LEA, 1878.

The Science and Art of Surgery, by Mr. Erichsen, is so well known to the surgical student that it demands no extended notice at our hands. This is an American edition revised by the author, from the last British edition, and is not simply a reprint. The author remarks, that in consequence of unavoidable delay "in the publication of the seventh British edition, I have found time to add to this one several paragraphs on important practical subjects, which will, I trust, be found to enhance the utility of the work as a guide to the Practitioner of Surgery." Each page of the former British edition has been revised, and in some instances the articles have been re-written. Some two hundred and thirty-seven pages of new matter have been added, extending over the two volumes. The illustrations have been increased in number by the addition of one hundred and fifty new figures. Some of the old engravings have been discarded and others substituted of improved style and execution; besides this the author has embodied in each volume a separate index. This is a very decided improvement, and enhances the value of the work, it facilitates reference to the subjects under discussion. Mr. Erichsen has incorporated into this edition all recent improvements in the science and art of surgery. It is, without doubt, the best dissertation on surgery in the English language, written by any one author. The articles are full and the style free and very readable. To the practitioner this work will be found of special use, as from it he will get a clear insight into the principles of surgery as well as a knowledge of the method of surgical emergencies and practice. The illustrations are very clear, and the type and get up of the book is in Henry C. Lea's best style. It can be had at Dawson Bros., St. James Street.

Lessons on Laryngoscopy: including Rhinoscopy, and the Diagnosis and Treatment of Diseases of the Throat.— By PROSSER JAMES, M.D., M.R.C.P., &c. Second edition illustrated with coloured plates. Small 8vo. pp. 176. London: BAILLIERE, TINDALL & COX, 20 King William Street, Strand, 1878.

The first appearance of this little work was in 1873, and it received the approval of the profession for its practical bearing. Since then, the author was obliged through illness to relinquish the practice of his profession: after a lengthened absence he found it advisable to issue a second edition, in this he has not thought it necessary to revise the text, but has added to the illustrations, and also given in addition five coloured plates. These are well finished, and are a valuable addition to the work. The work is practical, short, clear, and as a manual for ready reference, it contains all that is really essential for acquiring a knowledge of the art of examining the larynx with Garcia's mirror, and of successfully applying remedial agents to the lining membrane of the nasal cavities and upper air passages. To those interested in the use of the laryngoscope we know of no better or more instructive manual.

Materia Medica, for the use of Students.— By JOHN B. BIDDLE, M.D., Professor of Materia Medica, &c., Jefferson Medical College. Eighth edition, revised and enlarged, with numerous engravings. 8vo. pp. 462. Philadelphia: LINDSAY & BLAKISTON, 1878.

In the preface the author informs us, that in consequence of exhaustion of the seventh edition of his work on Materia Medica, in little over a year from the date of publication, he was obliged to bring out a new edition, and in doing this he has carefully revised, and in some instances re-written many of the articles. Some new articles have been added, so that the work is brought down to the present time. The author's aim has been to give to the students a text-book, short, succinct, and suitable to all his requirements, and in this we believe he has succeeded, and therefore fully recommend the work.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Removal of Astragali.—Mr. LUND, of Manchester, brought forward a case of Removal of both Astragali, in a case of severe Double Talipes. The patient, seven years of age, was said to have been born with the deformity—double talipes equino-varus,—and when six months of age tenotomy was practised, and subsequently he had worn instruments. He came under Mr. Lund's care in January, 1872, and attempts were made under chloroform to break down the adhesion, the chief obstacle being the partial dislocation of the astragalus. An incision, about an inch and a half in length was made over the head of the left astragalus, and when the bone was fully exposed an attempt was made to raise it by means of a gouge, in doing which a thin piece of the cup of the scaphoid and a slice of the inner malleolus were detached. To complete the dislodgment, a small, strong curved hook with a cutting edge in its concavity was used as a lever, and by passing it between the bones, the interosseous band was cut through, and this being done, the astragalus was easily removed. The right foot was similarly operated on, the cutting hook only being used. Antiseptic principles were followed, and the wound healed by the thirty-eighth day. The after treatment consisted in the use of elastic bands, to abduct the foot and keep the extended border raised. At the end of September he was supplied with a pair of Dr. Sayre's club-foot shoes. The boy was shown to the society, and there was seen to be considerable power of flexion at the ankle, and he was able to walk with ease. Mr. Lund advocated this operation for cases of unmanageable talipes, where tenotomy and instrumentation had been tried and failed.—Mr. W. Adams looked upon the case as one of great interest, the only defect being a little excess in the arch of the foot and slight contraction of the Achilles tendon, which might be remedied by its division or extension.—*The Lancet.*

Stone in the Bladder of the Male Adult.

The following is an abstract of the paper, entitled "An Account of 500 Cases of Operation for Stone in the Bladder of the Male Adult, with remarks on the most important incidents which have occurred in connection with them," by SIR HENRY THOMPSON, F.R.C.S. The 500 cases were in adult males—that is of twenty years old and upwards, the great majority being from 50 to 70 years; the mean age was 61½ years. They comprised Sir H. Thompson's entire and unselected work from the first case up to January, 1877. The published experience of Cheselden, Martineau, Brodie, and Fergusson was given. The sum of similar cases treated numbered 422. Of these 422, 69 were fatal, or 16¾ per cent.—i. e., 1 in rather more than 6 cases. Of the 500 cases in question, 432 were by lithotrity, and 78 by lithotomy. The number of individuals operated upon was 420, several of the lithotrity patients being operated upon twice, a few three times. In all cases a considerable interval and evidence of fresh formation, mostly a newly descended uric acid calculus had existed. Small phosphatic concretions, although removed by lithotrity, had not been reckoned as stone in the bladder. The chemical constitution of the calculi was as follows: Uric acid, 313; phosphatic, 99; mixed, 81; cystic oxide, 1; pure phosphate, and carbonate of lime, 2; phosphatic calculi formed on foreign bodies, 4. The mortality, accepting almost any death occurring within six weeks of operation, was as follows:—In 422 cases of lithotrity, 32 deaths, or 1 in 13 cases; in 78 cases of lithotomy, 29 deaths, or 1 in 2¾ cases. Total 500 with 61 deaths, or 1 death in 8½ cases. The causes of death which were given in each case, were tabulated, compared and contrasted, in the two operations, with inferences thereupon. Accidents met with in operating by each mode was detailed and the manner in which they were dealt with. The general inference was arrived at that it is unwise to apply, as a rule, lithotrity to any stones above moderate size; and if any calculus is sufficiently large to require the fenestrated instrument, it is better to employ lithotomy. The author had not employed such an instrument during the past ten years.—*The Lancet.*

Anchylosis of both Knee Joints.—A case of Anchylosis of both Knee-joints, with shortening to the extent of two inches of the femora, from oblique and comminuted fractures, by Mr. BRODHURST. This communication described a case in which there was fracture of both thigh-bones, together with injury to both knee-joints. Shortening to the extent of two inches took place in each thigh-bone, and anchylosis followed the injuries to the knee-joints. The mode of restoring motion is related, and it is stated that motion was ultimately as perfect as before the accident; and further, it is stated that notwithstanding the shortening of the femora, the patient was not less active, whether on foot or on horseback, than before his accident.—Mr. Morrant Baker, asked for a further description of the instrument by which these results were arrived at; and Mr. Hulke, referring to a statement in the paper that Sir William Fergusson had pronounced the case to be one of bony anchylosis, asked whether this opinion was gleaned direct from Sir William, or only on hearsay evidence.—Mr. Brodhurst, in reply, thought the instrument was too well known to have been shown to the Society. He had now used it in many cases for several years, and it consisted in a couple of splints supporting the femur and tibia, or the humerus and forearm, with a roller placed at the elbow or ham; secondly, a wheel and axle. It was thus very powerful, and he had used it in cases of very firm adhesions in which resection had been advised, and in some cases he had used it to restore motion after resection had been performed. The first case in which he employed it was a severe and long-standing one, in which it was necessary to perform tenotomy before applying the traction. Sir W. Fergusson's opinion was communicated to him by the gentleman who was with the patient when he saw Sir William.—M. Hulke criticised the use of such forcible measures in subluxated joints, and in conditions where a stiff and strong lower limb was better than a loose joint.—Mr. Brodhurst contended that, in the case related, the patient, who had seen nearly all the surgeons in London, was placed in an infinitely better condition as regarded his locomotive powers after than before the operation. No one who had

seen him could doubt this.—Mr. Hulke did not question the propriety of the operation in this particular case, but here there did not appear to have been subluxation, as he gathered from Mr. Brodhurst was the case in other instances in which he had employed it.—Mr. Brodhurst said he was misunderstood. In the first case in which he applied the instrument there was subluxation, and he had to remove dead bone and to divide tendons before the instrument could be used.—*The Lancet.*

Rodent Ulcer.——Mr. C. HIGGENS read this paper. The patient was a married woman, aged forty-five; her health had always been good. The rodent commenced thirteen years before admission to Guy's Hospital (at the remarkably early age of thirty-two), showed but little tendency to ulcerate until five years after its first appearance. During the progress of ulceration, a second pimple, of apparently the same nature as the first, made its appearance in the angle between the right side of the nose and cheek: it did not, however, ulcerate. The eye-ball, which was quite healthy, was excised, and the ulcerated surface destroyed with a paste of chloride of zinc and starch, applied on strips of lint; after separation of sloughs some cicatrisation took place. The disease soon commenced again; and eighteen months later the surface of the ulcer and adjoining infiltrated tissue were destroyed with the galvanic cautery, and chloride of zinc paste applied; the second pimple, which was enlarging, was also burnt out. After separation of sloughs, cicatrisation again took place to a great extent; but four months later the disease was again spreading rather rapidly. The whole of the thickened margin and base of the ulcer, together with a large amount of adjoining healthy structures, including skin, mucous membrane, muscles, and bone, were cut away with a scalpel, the bleeding stopped with a "thermo-cautery," and chloride of zinc paste applied all over the cavity left. The wound finally healed entirely, but subsequently some recurrence of the ulceration took place, and the diseased tissues were again removed with knife, cautery and caustic. Cicatrisation took place, and with the exception of a small part of the outer margin, the wound has since remained firmly healed.—*Med. Times and Gazette.*

"Lymph Scrotum."—Mr. COLES showed a specimen of "lymph-scrotum" from a patient in China, and gave an account of the pathology of the disease, from the stage of discharge to that of growth. The condition was associated with the presence of filariæ in the blood; and Mr. Coles also described these organisms.

Mr. Morrant Baker asked what was the colour of the lymph that escaped from the cut vessels of the affected organ; whether it was milky, and if so, why?

Mr. Coles replied that the fluid was not milky, and that he could not account for its colour.

Sir Joseph Fayrer said that the pathology of "lymph-scrotum" was correctly described by Dr. Vandyke Carter, in the year 1861. In 1865 he had himself described the same disease under the name of "nævoid elephantiasis," and suggested that it might be due to the presence of a nematode worm. Very soon after, filariæ were discovered in the fluids. The filariæ were of interest pathologically as well as surgically, for it was probable that cachectic malarial diseases would be found to be related to them. As to the characters of the "lymph" he had seen it of a specific gravity of 1020; of variety of colours, but generally faintly pink; and coagulating rapidly. The abstraction of this fluid caused as much depression as if it had been blood. Lewis had suggested that the worms caused mechanical obstruction in the ducts. Whether this disease was identical with true elephantiasis or not (for the dilatation of the lymphatics might be insignificant) was doubtful. He had seen as much as sixteen ounces of fluid come from punctures in the scrotum in a few minutes. Removal of the growth was attended with relief of the symptoms.

The President asked whether filariæ had been found in non-nævoid elephantiasis.

Sir Joseph Fayrer replied that they had not, so far as he was aware, but their discovery might be expected. He had himself seen specimens of the blood-worms discovered by Dr. Sonsino, of Cairo, in some cases of hæmaturia.

Dr. Cobbold said that Wucherer, of Bahia, first discovered

the filaria in chyluria. Two years later, Lewis found it in the urine in chyluria; and two years afterwards, Dr. Cobbold himself found it in a case from Natal. Still later, Lewis made the discovery of the worm in the blood. But it was Bancroft of Australia, that first saw the sexually-mature worm. Dr. Bancroft, he understood, was now able to diagnose filarial disease in patients from the presence of small tumours in the armpits, face, etc. In one of his letters he had remarked that he should not be surprised if it were found that mosquitoes sucked up the filariæ. He had failed, however, to prove this; but Manson of Amoy had really and truly observed this, and had traced the various stages throughout. In one mosquito Manson had counted as much as 120 filariæ in its stomach. Within its host the filaria threw off the outer tunic, and became transformed into a sausage-like body; and thence it passed into a third form. Having fed upon blood the mosquitoes betook themselves to water, on the surface of which they deposited their eggs, living for five days only. By the end of this time the filariæ within them had reached to the length of one-thirtieth of an inch. From the water they found their way into man. Dr. Cobbold urged the necessity of more precision in the description and nomenclature of worms in man; otherwise much confusion arose, and ungracious remarks were sometimes made.

Dr. Crocker said that he had lately examined the blood for filariæ in a case of elephantiasis with dilated lymphatics, secondary to erysipelas, where the subject had never been abroad. No filariæ could be found.

Mr. Coles said that a very low microscopic power must be used in searching for the worm, which was one-thirtieth of an inch in length. Mr. Coles' specimen was referred to the Morbid Growths Committee.—*Medical Times and Gazette.*

Renal Calculus Containing Indigo.—Dr. ORD showed a renal calculus containing indigo. He said that indigo was sometimes found in the urine unaltered by chemical agents; and all urine contained a material that yielded indigo-blue. But indigo-blue had never hitherto been

found in calculi. The specimen was sent to Dr, Ord, by Dr. Bloxam with the kidneys; and was found in the pelvis of the right kidney, the left being sarcomatous, and containing a calculus of carbonate and phosphate of lime. The calculus containing indigo was partly of a dark-dirty-brown colour, and partly crusted with a blackish-blue matter which coloured paper blue. When heated the calculus gave off a sooty smell, like that of burning indigo, a great part of it disappearing in smoke. Dr. Ord found that the blue portion gave a blue solution with hydrochloric acid; that when heated in a test tube to a degree below redness, it gave off a bulky vapour resembling iodine vapour, which deposited crystals on a cool surface; and that the crystals so deposited were characteristic, being elongated six-sided tablets with pointed ends. Powdered and rubbed up with strong sulphuric acid, the substance yielded a blue solution. and this, when diluted and filtered, furnished a beautiful blue fluid. Spectroscopically examined, this fluid stopped the yellow by a defined band, the centre of which corresponded to the sodium-line. On all this evidence Dr. Ord considered the substance to be true indigo. The next question was—How came indigo to appear in a calculus? Was it from the food? Many plants yield a juice which, on fermentation, gave indigo-blue; but there had been nothing peculiar in this man's food. Carbolic acid, again, had been supposed to form indigo; and this man had taken a considerable quantity of creosote before his death But Jaffé had shown that indigogen is formed in the urine of animals whose food is altogether non-vegetable, and had connected indigo in urine with indol in the body. Indol could be formed artificially from indigo; and it might be derived from albuminous matters. It occurred *e. g.*, in fæces. The subcutaneous injection of indol in dogs increased the amount of indican, or indigogen, in the urine. Therefore, the two bodies were normally connected. Schunk had another idea—he had separated indican from indigo-yielding plants, and showed that, when it was subjected to acid, it was decomposed into indigo-blue and indiglucine. Arguing from this, Schunk supposed that a similar body is formed in animals, and makes its appearance in the

urine. Certain affections might be associated with the presence of indigo in the urine, such as colic; it also frequently appeared in cholera, and in suppuration, especially that connected with the urinary passages. Pus itself was greenish, and in the presence of ammoniacal decomposition indigo might be formed from it. In the present case this might have been its mode of origin in the calculus. There was no natural exit for the products of disease in the left kidney, on account of obstruction of the ureter; certain of these products might therefore have been absorbed into the blood, and excreted by the opposite kidney as indigo blue.

The President said that whatever might be the explanation offered of the mode of formation of the calculus, the Society had to congratulate Dr. Ord on the discovery of the first indigo-calculus on record.

Dr. Thudichum said there was no question as to the substance being indigo. He had himself examined it, and confirmed all Dr. Ord's conclusions. Indigo-yielding urine might be perfectly colourless, as in cholera, where indigoferous substances were more abundant than in any other condition. He believed that Dr. Ord's theory of the mode of formation of the calculus in the present case was quite satisfactory until a better should be offered. Dr. Ord's discovery would direct more attention to substances that occurred in the body in very small quantity, but were none the less important on that account. Schunk's theory might be correct, but it was probable that the matter in the urine was not identical with the substance in indigoferous plants.—*Med. Times and Gazette.*

Cystic Disease of the Thyroid Gland.—Mr. JAMES WOOD showed a specimen of cystic disease of the thyroid gland, which he had removed by operation from a woman of twenty-three, in King's College Hospital. The tumour had been growing for fourteen years, but had lately increased rapidly in size. It was very large, extending from the upper border of the thyroid cartilage to the middle of the sternum, and overlapping the sterno-mastoid on either side. It was

manifestly adherent to the thyroid structures; could be lifted up from the other parts that it covered; and several arteries could be felt entering it. To the hand it was semi-elastic and tense; but on either side it felt more solid. There was neither exophthalmos nor cardiac disturbance; and the general health was good. The growth was variously treated. Iron, cinchona, and ergot were given internally; the cystic portions were tapped several times; galvano-puncture was also employed; and iodine was injected. At last the tumour, considerably reduced in size, was removed *en masse* by Mr. Wood, under the antiseptic spray. The operation exposed the trachea, the carotid sheath, and the sterno-mastoid muscles. The wound was dressed antiseptically. Recovery was delayed by painful swelling of both legs. On examination of the tumour it was found to possess three capsules—first, the capsule of the gland proper, on which the smaller arterial branches were distributed, and from which the interlobular septa dipped down; secondly, a looser capsule external to the first; and thirdly, a thick covering externally, on which the large branches of the arteries ran; it was on the third capsule that the vessels were ligatured. The interior of the cyst presented curious projections, some of which were probably the remains of septa. Fibrin was deposited in places on the serous internal lining. The microscopical structure of the growth was still undetermined.—*Med. Times & Gazette.*

Large Gall-stone, with Ulcerative Escape.—Mr. BARKER showed a very large gall-stone, from a lady of fifty, who had been a patient of Dr. Quain's and Mr. Erichsen's. In October last the patient had suffered from malaise and night-sweats, with some tenderness in the right hypochondrium. She continued to complain somewhat up to Christmas, passing several stools daily of a fatty appearance. At Christmas she went out freely. On February 4th last, pain commenced in the right iliac region, followed by vomiting. Four stools were passed at this time; but no more up to her death. The vomiting afterwards became stercoraceous. On February 10th no hernia could be discovered, and in a few days

she died, the vomiting persisting to the last. Post-mortem no acute peritonitis was found. In the upper part of the ileum a large solid body could be felt, lying in the right iliac region; and this proved to be a biliary calculus, four inches and a half in circumference. It consisted of layers of cholesterine and biliary colouring matter. There were thin fæces above and below the calculus in the gut. The anterior margin of the right lobe of the liver was adherent to the colon; and a ragged cavity occupied the region of the gall-bladder. The ductus communis choledochus was not obstructed, but dilated. Fourteen or fifteen large calculi were found in the cavity. The absence of general peritonitis was remarkable. Undoubtedly the symptoms of last autumn were referable to ulceration and suppuration about the gall-bladder. These had culminated in ulceration and escape of the calculus. In February it had probably been arrested in its passage at the ileo-cæcal valve, though it was not formed there. —*Medical Times & Gazette.*

Removal of Port-wine Mark by Scarification.—Mr. BALMANNO SQUIRE read notes of two cases of Port-wine Mark, treated with a view to obliterating the mark without scar. The one case was that of a man aged thirty; the other that of a woman aged fifty-five. In both the port-wine mark was confined to its commonest situation—viz., the right half of the face; and in each case treatment was carried on long enough to produce nearly complete obliteration of the mark. Scarification was adopted in both cases by means of paralle incisions with a frozen scalpel, the skin being also frozen by means of the ether spray: the cuts involved the entire thickness of the skin, and were made about one-sixteenth of an inch apart, and as soon as this had healed (within three or four days) a second set of parallel incisions were made obliquely to the direction of the first set; and so on with a series of operations. This procedure gradually resulted in the fading of the port-wine mark, and its final complete obliteration without leaving any scar. Mr. Squire showed drawings of these cases, and of an instrument he had devised (made for him by Messrs. Weiss) for executing a

series of incisions at one stroke. It was a scalpel with 16 parallel blades, placed so closely together that eight of them only measured half an inch across. He also described an apparatus, consisting of a number of parallel needles fixed in a plaster-of-paris handle, so that the handle contained thirty-six needle points in the half inch square. These should only be heated to a black heat on their insertion into the skin, for if heated to redness they produced complete sloughing of the entire area of skin operated on.—The President (Professor Erasmus Wilson) said that the operation was obviously as yet only in its infancy, but that the process of linear scarification as proposed by Mr. Squire appeared to him to promise good results. Certainly no other satisfactory mode of dealing with port-wine marks had as yet been proposed.—Mr. Malcolm Morris stated that he had attempted an operation on port-wine mark with the single scalpel as at first advocated by Mr. Squire, but had found difficulty in executing the incision with the requisite nicety. He had accordingly devised a multiple scarifier, which he exhibited (made for him by Mr. Hawksley). He had tried this instrument on lupus erythematosus, and also in cases of acne rosacea.—Mr. Wordsworth agreed with Mr. Squire in preferring a black heat to a red heat in operating by the needle process. He had long employed, —viz., for twenty years—in cases of port-wine mark, a solitary neeedle bearing a ball of steel around the needle placed at about three-sixteenths of an inch from the point so as to retain heat. This ball enabled a rapid series of punctures to be effected with the needle without the needle losing its heat.—Mr. Davey had treated a case of port-wine mark with some success on Mr. Wordsworth's plan. Mr. B. Squire replied that in order to succeed in effecting neatly close parallel incisions, some practice in pencil or in pen-and-ink drawing was a considerable advantage, and that those practitioners who happened to have this kind of training would find but little difficulty in the matter. However, the multiple scarifier he had devised would effectually dispense with the necessity for that kind of accomplishment. He had tried multiple linear scarification in lupus, but preferred the results he had obtained in that disease by erasion with a minute

sharp steel spoon. The spoon in such cases had also been tried with good results by Professor Auspitz and by Hebra junior. In the "telangiectasis" which often accompanies acne rosacea, he had employed linear scarification as proposed by himself with better results than the multiple punctiform scarification recommended in such cases by Hebra senior. Professor Vidal, of Paris, had recently adopted Mr. Squire's method of linear scarification in cases of lupus vulgaris, with apparently good results. Dr. Dubini (of Italy) and after him Professor Volkmann (of Halle) had proposed multiple punctiform scarification in cases of lupus vulgaris, but no one, so far as could be ascertained, had proposed the bolder method of linear scarification in lesions of the skin, and this was more uniform and more thorough in its effect. Moreover scarification of any kind as applied to port-wine mark was, he believed, as yet untrodden ground.—*The Lancet.*

College of Physicians and Medical Women.—The position taken by the Fellows of the Royal College of Physicians, London, in deciding not to grant their license to practice physic to women is both clear and intelligible. They were careful to show that they do not so much oppose the creation of medical women as they are unwilling to lend any assistance to, or to co-operate with, those who are anxious to introduce women into the medical profession. Above all, they do not wish to make women constituents of the College.

Sir Joseph Fayrer made an important explanation, which demolishes one of the arguments on which the advocates of medical women have been wont to rely. It had been said that medical women were needed because medical men were denied access in their professional calling to women in India. This was contrary to his experience. He had never any difficulty in entering the zenanas when real sickness existed. Medical men were, with few exceptions, admitted freely everywhere in India. The contrary opinion at present prevalent in the public mind was of purely English origin.—*Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1878.

ANNUAL CONVOCATION, McGILL UNIVERSITY.

The annual convocation of McGill University for conferring degrees in the Faculties of Medicine and Surgery, and Law, was held in the William Molson Hall of the University on Saturday, 30th March, 1878. There was a large assemblage of the friends of the University present. Shortly after three o'clock the members of the Convocation, who had assembled in the Library, entered the hall and took their seats. The chair was taken by the Chancellor of the University, the Honourable Charles D. Day, LL.D.

The proceedings were commenced by the customary prayer by the Rev. Professor Murray, after which the Secretary, W. C. Baynes, Esq., M,A., read the minutes of the last meeting of Convocation.

By request of the Chancellor the following report of the Medical Faculty was read by the Dean, George W. Campbell, M.D., LL.D.

The total number of students enregistered in this Faculty during the past session was 161, of whom there were from

Ontario,	90	New Brunswick,	3
Quebec,	47	P. E. Island,	4
Nova Scotia,	4	West Indies,	1

United States, 12.

The following gentlemen 40 in number have passed their Primary examinations on the following subjects: Anatomy,

Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany and Zoology. Their names and residences are as follows:

NAME.	RESDENCE.
Brown, J. L.	Chesterfield, O.
Burwash, Henry J.	St. Andrew's, Q.
Butler, Billa F.	Stirling, O.
Carman, Philip E.	Iroquois, O.
Carman, John B.	Iroquois, O.
Chisholm, Murdoch	Loch Lomond, N.S.
Feader, Henry C.	Iroquois, O.
Gray Thomas	Brucefield, O.
Groves, George H.	Carp, O.
Gurd, David F.	Montreal, Q.
Hart, George C.	Osnabrook Centre, O.
Hanna, Franklin	Harlem, O.
Heard, Charles D.	Charlottetown, P. E. I
Henwood, Alfred J.	Brantford, O.
Imrie, Andrew W.	Spencerville, O.
Inksetter, David G.	Copetown, O.
Jackson, Joseph A.	Lawrence, N. Y.
Jamieson, Charles E.	Ottawa, O.
Lawford, John B.	Montreal, Q.
Lefevre, John M.	Toronto, O.
Lloyd, Hoyes W.	Strathroy, O
Lyford, Charles C	Roscoe, Ill.
McArthur, John A.	Underwood, O.
McCully, Oscar J.	Sussex, N.B.
McCullough, George	St. Mary's, O
McEachran, William	Montreal, Q.
McGuigan, William J.	Stratford, O.
McNee, Stuart	Perth, O.
Menzies, John B.	Almonte, O.
Scott, John G.	Ottawa, O.
Seymour, Maurice M.	Chesterville, O.
Shaw William F.	Ottawa, O.
Small, Henry B.	Ottawa, O.
Smith, John	Torbolton, O,
Spencer, Richmond	Montreal, Q.
Smiley, Jonathan	St. Lambert, Q.
Stevenson, Hans	Wakefield, O,
Sutherland, William R.	Montreal, Q.
Weagand, Clarence A.	Dundas Co., O.
Williston, Hedley V.	Newcastle, N.B.

The following gentlemen, 27 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from

this University. These exercises consist in examinations both written and oral on the following subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Medical Jurisprudence and Hygiene,—and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital:—

NAME.	RESIDENCE.
Beckstead, Morris	Grantly, O.
Bell, Robert	Montreal, Q.
Cameron, John D	Glengarry, O.
Chisholm, Alexander	Lochiel, O.
Collison, Robert	Matilda, O.
Faulkner, Daniel W	Holloway, O.
Fortier, Louis A	Philipsburgh, Q.
Fraser, John R	Hawkesbury, O.
Gardner, Henry H	Orillia, O.
Gibson, William B	Dunham, Q.
Greenwood, Fred. S	St. Catherines, O.
Guerin, James F	Montreal, Q.
Hutchinson, John A	Bluevale, O.
Howey, William H	Delhi, O.
McCann, John J., B.A	Milbury, Mass.
McCrimmon, John	Woodville, O.
McCrimmon, Milton	Ancaster, O.
McKinley, John K	Perth, O.
McNeill, Ernest	Montague, P. E. I.
Mills, Thos. W, M.A	Hamilton, O.
Neilson, William J	Perth, O.
Setree, Edward W	Prescott, O.
Smith, Daniel F	Listowell, O.
Stafford, Fred J	Montreal, Q.
Vineberg, Hiram N	Montreal, Q.
Webster, Arthur D	Kentville, N.S.
Wright, John W., B.A	Cressy, O.

Of the above named gentlemen, Messrs. Greenwood and Gardner, are under age. They have, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only await their majority to receive their degree.

The following gentlemen have passed in Anatomy:—

Bruce L. Riordan, Thomas Ambrose, John R. McEvenue.
R. R. McCorkill, Henry E. Poole.

The following gentlemen have passed in Physiology:—

Thomas Ambrose,	Alex. F. Pringle,	Bruce I. Riordan,
Milton McCrimmon,	Alex. F. Poaps.	

The following gentlemen have passed in Chemistry:

T. L. Brown,	R T. E. McDonald,	E. H.Smith,
F. W. Church,	R. R. C. McCorkill,	J. O. Stewart,
John J. Church,	M. McNulty,	T. W. Serviss,
D. K. Cowley,	R. J. Mass,	G. T. Ross,
James Cahalan,	L. D. Mignault,	A. M. Ruttan,
J. O. Dibblee,	F. W. Pulford,	B. L. Riordan,
William Dulmage,	A. F. Pringle.	

The following gentlemen have passed in Materia Medica:

Thomas Ambrose,	Andrew Henderson,	W. J. Prendergast,
Thomas L. Brown,	R. T. E. MacDonald,	Allen M. Ruttan,
F. W. Church,	E. A. McGannon,	James Stewart.
Wm. R. Dulmage,	Louis D. Mignault.	

Students who have passed in Botany:

CLASS I.

E. J. Rogers, C. M. Gordon, } 1st Prize.	S. E. Joseph,	T. A. O'Callaghan,
	J. E. Heyd,	A. D. Struthers,
J. H. Carson, 2nd Prize,	J. W. Ross,	J. C. Shanks,
W. C. Perds,	W. L. Gray, T. W. Reynolds, K. McKenzie. } equal.	* N. L. Cressey,
W. Moore,		E. Fritz.

CLASS II.

E. C. Fielde,	J. J. Hunt,	W. Cormack,
W. A. Shufelt,	W. J. Derby,	R. H. Klock,
W. H. Snow,	J. McLain,	* G. A. Parkinson,
J. McKay,	J. B. Harvie,	E. Laurin,
R. B. Struthers,	W. A. Lang,	H. A. Higginson.

CLASS III.

M. Chisholm,	J. M. Skeffington,	* A. Harris,
R. Shaver,	T. Tupper,	G. C. Wagner,
V. Dafoe,	H. D. Fraser,	M. R. Cuzner,
A. McDonald,	A. H. Dunlop,	M. S. Brown,
J. A. Jackson,	* P. Cummings,	W. H Drummond,
M. Jakeman,	C. Beer,	A. F. Pringle,
	E. White,	

* Marked thus are Veterinary Students.

The Medical Faculty Prizes are four in number:

1st. The Holmes Gold Medal, awarded to the student of the graduating class who receives the highest aggregate number of marks for the best examination, written and oral, in both Primary and Final branches.

2nd. A prize in books awarded to the best examination, written and oral, in the final branches. The gold Medallist is not allowed to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

4th. Sutherland Gold Medal awarded to the student who passes the best examination in Theoretical and Practical Chemistry, with creditable passing in the Primary branches.

The Holmes Gold Medal was awarded to Hiram N. Vineberg, of Montreal.

The prize for the Final Examination was awarded to Thos. W. Mills, M.A., of Hamilton.

The prize for the Primary Examination was awarded to William R. Sutherland, Montreal.

The Sutherland Gold Medal was awarded to John M. Lefevre, Toronto.

The following gentlemen arranged in order of merit, deserve honourable mentton.

In the primary examination: Messrs. Lawford, J. L. Brown, Imrie, Shaw, Stevenson, Gurd, Lefevre, Gray, Williston, J. Smith, McCully and McGuigan.

In the Final Examination:—Messrs. Neilson and Gibson.

PROFESSOR'S PRIZES.

BOTANY, - - - - { Rodgers and Gordon, 1st; Carson, 2nd.

Special Prize for collection of Plants, Beaumont Small.

PRACTICAL ANATOMY.

SENIOR CLASS.

Prize.—JOHN B. LAWFORD.

The following gentlemen deserve honourable mention in order of merit; Lyford, Small, Imrie, McArthur, Gray, Stevenson, Smith, J. Sutherland, Gurd and Brown, (J. L.)

JUNIOR CLASS.

Prize.—WILLIAM L. GRAY.

Honorable mention in order of merit;—Beer, Joseph, Moore, Harvie and Cormack (equal), Ross and B. E. McKenzie (equal), Rodgers, Heyd and McLain (equal), Struthers (R. B.) and Laurin (equal).

Practical Chemistry *Prize*, A. D. WEBSTER.

Obituary.

THE LATE JOHN BELL, A.M., M.D.

Again we are called upon to record the death of a brother practitioner, but on this occasion it is one of our junior members. Dr. Bell had been in active practice in Montreal for some eleven years, he was a young man of more than ordinary ability, and may be said to have died in harness. He was a very busy practitioner, and after a hard day's labour he left by train for Hamilton to see a near relative who was at the point of death. Arriving at Toronto it was noticed by a friend that the Doctor was himself ill, and he was induced to stay over for a few hours. He, however, went on by the next train, and on arriving at Hamilton he was obliged to take to his bed, which he never left in life, in the course of a short week he succumbed to a severe attack of Pneumonia.

Dr. Bell was a most excellent practitioner, careful and reliable; a thorough Christian gentleman, he was a general favourite with his fellow practitioners, and gained their esteem by the amiability of his character, and the scrupulous uprightness of his conduct. He acted for one year as Secretary to the Medico-Chirurgical Society of Montreal, but was forced to relinquish those duties as they were too onerous, but he always took a deep interest in the society, and was seldom away from our meetings. He has contributed several papers of great

interest, which have from time to time appeared in our journal. Practically, he was a good surgeon, performing operations with coolness and dexterity, and in one of his communications published in the August (1875) No. of this periodical, he proposed a new method of securing the pedicle in ovariotomy. His last contribution to medical literature appeared in February (1878) number of our periodical, on a case of diphtheria, in which tracheotomy was performed, and which was successful. Dr. Bell was an M.A., of Queen's College, Kingston, he was an excellent botanist. and he graduated at McGill University, in 1866, receiving the degree of M.D., C.M.

PHOSPHORUS PILLS.—We have received from Messrs. W. R. Warner & Co. of Philadelphia, a box containing a number of samples of their sugar-coated phosphorus pills. These are most excellent preparations, the phosphorus being in combination with other drugs. This process with great skill and care is affected while in solution, and the pills are perfectly protected from oxidization by the sugar coating. We learn that the mass is soft, has the odour of phosphorus, is luminous in the dark, perfectly homogeneous, exhibits no particles of undivided phosphorus.

The pills may be had containing phosphorus only, in doses of from 1-50 to 1-100 of a grain, or the phosphorus can be procured in combination with iron, cannabis indica, cantharides, strychnine, quinine, nux vomica, and various other medicinal substances, a list of the various combinations, and the quantity of phosphorus in each case can be seen by referring to the advertisement of Messrs. Warner & Co,

These preparations are perfectly reliable, they have been found by analysis to contain the exact quantity in each pill as indicated on the label. We commend these preparations to our readers; the value of phosphorus as a nervine is fully recognized. In these pills the drug is presented in an elementary state, and is free from those repulsive qualities which have so greatly militated agninst its use.

CANADA

MEDICAL & SURGICAL JOURNAL

MAY, 1878.

Original Communications.

REMARKS ON KERATOTOMY.

BY FRANK BULLER, M.D., M.R.C.S., Eng.

Oculist and Aurist to the Montreal General Hospital, Lecturer on the Diseases of the Eye and Ear, McGill University.

(Read before the Medico-chirurgical Society, of Montreal, March 22, 1878.)

It has long been known to those who are familiar with the treatment of the diseases of the eye, that many ulcers of the cornea continue to enlarge until perforation of that membrane takes place, that the destructive process then comes to a standstill, and from this time forth nature proceeds to repair as far as possible the damage which the eye has sustained. Under such circumstances, however, it is not uncommon to find that the amount of destruction has been so great as to render anything like a *restitutio ad integrum* an impossibility, indeed many eyes are thereby rendered useless for visual purposes; others again can perhaps be restored to some degree of usefulness by subsequent operations, whilst the best of them are almost certain to remain more or less permanently blemished. The importance, therefore, of preventing such an issue by an early arrest of the disease, is one which cannot be too highly estimated, and it is with this that we shall have to deal this evening.

About the year 1870, Professor Sæmisch of Bonn, described

a certain form of ulceration of the cornea as "Ulcus serpens," and recommended the operation of Keratotomy as the best means of arresting it, if a fair trial of simpler means fail to do so.

The chief characteristics of the "Ulcus serpens" are, according to Sæmisch, as follows: Somewhere near the centre of the cornea, a round or oval loss of substance occurs, giving rise to a greyish opacity at this part. At some portion of the circumference of this defect the margin is more or less swollen and of a yellowish colour. This appearance will sometimes correspond to half the circumference of the ulcer which is moreover always deepest at this part. Beyond the ulcer, but in the immediate neighbourhood of its swollen edge, the cornea is for a short distance somewhat turbid, and traversed by opaque striæ running obliquely through its substance, beyond these again it is entirely normal in appearance. The ulcer tends to spread more or less rapidly in the direction of the opaque striæ, both in depth and circumference. From the posterior surface of the cornea a gelatinous-looking, turbid mass may be seen extending back towards the pupil and iris; often the anterior chamber will be found to contain a purulent deposit or hypopyon, just as in other forms of purulent keratitis. Iritis almost always occurs before the disease of the cornea has made much progress The subjective symptoms, such as pain and intolerance of light. vary considerably in different individuals without any obvious reasons for such variation. The disease almost always attacks elderly people, especially those who are in a feeble state of health, and it may generally be traced to some slight injury which the cornea has sustained. One of the predisposing causes of this form of ulceration seems to be the existence of chronic catarrhal inflammation of the conjunctiva, such as obtains in old cases of dacryocystitic blenorrhœa.

The treatment recommended by Sæmisch for this form of keratitis depends upon the extent of the disease and the rapidity of its progress; and I may say here that my own experience has convinced me that his views are entirely correct.

At first when the ulcer is small, say not more than two or three millimeters in its longest diameter, even when there is

hypopyon, the use of atropine will sometimes suffice to check its progress and initiate the healing process. This treatment may be rendered still more effective by the use of fomentations continued for 15 or 20 minutes, several times daily, and a compressive bandage. The latter is contra-indicated by the existence of blenorrhœa of the lachrymal sac, or when there is much catarrhal secretion of the conjunctiva. If a fair trial of these remedies does not arrest the ulceration in the course of two or three days, or if the ulceration exceeds the limits mentioned when first seen, operative interference is generally called for.

Several different operations have been found to answer the purpose, and a comparison of their individual merits might be both interesting and instructive. I shall, however, only describe one of them, that is the operation of keratotomy.

Supposing we have to deal with an "Ulcus serpens," situated at or near the centre of the right cornea, and spreading towards the median line, or nasalwards. The operation would be performed in this way: The patient lies upon his back on a suitable couch or table, and, if necessary, chloroform may be administered, though an anæsthetic is not usually necessary. The lids are to held apart by means of a stop speculum, and the eye-ball fixed by firmly grasping the conjunctiva and sub-conjunctival tissue with a fixing forceps held in the left hand and applied a short distance beyond the inner margin of the cornea. The surgeon now taking a narrow-bladed cataract knife in his right hand, causes it to penetrate the cornea a short distance to the temporal side of the ulcer; the puncture being made in a direction nearly perpendicular to the surface of the cornea. The handle of the knife is now to be depressed till the back of the blade is parallel with the plane of the iris, then the knife is pushed onwards till its point is seen to be beyond the inner edge of the ulcer; at this point the counter puncture is made, and the incision slowly completed.

Care is to be taken that both puncture and counter-puncture are made through healthy corneal tissue. The incision must as nearly as possible divide the swollen edge of the ulcer into two equal halves, hence its direction must be made to vary according to the direction in which the ulcer is extending, care must also be

taken not to wound the lens, and a sudden escape of the aqueous humour is to be avoided by gentleness of manipulation.

The contents of the anterior chamber soon after their escape coagulate in the conjunctival sac, and form a yellowish gelatinous, stringy mass. This is to be cleared away, and a drop of atropine solution instilled, and a light compress bandage applied, unless there be blenorrhœa of the lachrymal sac, in which case careful and repeated cleansing of the eye is all that is advisable. The effect of the operation is salutary from the very outset, often in a few minutes all pain will have ceased, and the patient will obtain a good night's sleep, the first perhaps that he has had for a long time. The next day the wound will generally have healed, or at least its edges will be sufficiently adherent to retain the aqueous humour, but in addition to the cessation of pain and lessened irritability of the eye, the ulcer itself will often already show changes for the better, the swollen edges will appear less swollen, and of a less yellow colour. The pupil will be more dilated by the atropine than before the operation. If, however, we allow matters to rest in this condition a relapse of the ulceration will almost certainly occur; to prevent this a very simple procedure is all that is necessary. The wound must be re-opened from time to time, say once or twice daily until the healing process is fairly established: that is, until the ulcer has lost all its yellownesss and become smooth, the aqueous humour clear and no longer coagulable. The re-opening of the wound is devoid of danger, and causes little or no pain, it is best done with a probe-pointed, lachrymal knife, or a fine probe, in such a way as to separate the edges of the wound in its whole length, and thus permit the contents of the anterior chamber again to escape.

Atropine instillations and the compress bandage may be continued till healing is well advanced.

I have no hesitation in saying that keratotomy performed in this way is one of the most satisfactory operations in ophthalmic surgery, and hardly ever fails to arrest a disease which would otherwise terminate in destruction of the eye; and I am at a loss to understand why it has not met with greater favour in the writings of such men as Brudenel Carter, and Soelberg Wells.

The former gives the preference to the operation of iridectomy, and objects to keratotomy on grounds that are, I think, scarcely tenable. Amongst other objections he states that the cicatrix left by the healing of an incised ulcer, yields after a time and becomes a source of pain and irritation. Though I am not prepared to say that this statement is wholly incorrect, I can after a pretty large experience positively affirm that I have never met with any such results. Soelberg Wells also speaks of the operation of keratotomy, but he, too, prefers to rely on iridectomy.

Pridgen Teale, however, in the Ophthalmic Hospital Reports, Vol. VIII, part I, strongly advocates the operation of keratotomy (which he designates median incision of the cornea), and is disposed to give it a wider range than Sæmisch has done.

He says: "The following principles seem to be indicated by the cases in which I have tested the operation during the last year and a half."

"That the suppurative affections of the cornea and iris "which do not rapidly yield to atropine and opiates, ought to "be dealt with by direct incision through the median part of the "cornea into the anterior chamber just as much as a matter "of course, as one would incise a whitlow, or a thecal abscess."

(*b.*) "That such an incision be made crucial or T shaped, if "it be thought desirable that the wound should not heal up "rapidly, thereby avoiding the necessity of springing the wound "once or twice daily for a week or more."

(*c.*) "That an incision near the centre of the cornea, in "length about $\frac{1}{3}$ of its diameter, passing vertically through its "lamellæ into the anterior chamber, does not, as a rule, produce "any serious damage to the cornea by way of opacity, nor to "the iris by way of prolapse or anterior synechia."

(*d.*) "That in hypopyon a median incision of the cornea gives "exit to pus and purulent lymph lodged in the anterior cham- "ber more readily, certainly, and completely than a marginal "incision."

(*e.*) "That an incision into the anterior chamber, through a "suppurating cornea, can arrest destructive suppuration and

" sloughing where iridectomy has already been employed un-
" successfully."

The three last principles I am prepared to endorse on the strength of my own experience, but I would only accept the first two with a certain reservation.

The two following cases will illustrate the advantage to be derived from incision through the cornea according to the method advocated by Sæmisch, though they were neither of them typical examples of the creeping ulcer, or " Ulcus serpens."

I might give a long list of equally successful cases, but to do so would be, I think, superfluous.

H. B., æt. 33, brass-finisher, a pale, sallow man, was admitted into the Montreal General Hospital, October 6th, 1876. He has been affected for many years with a chronic blepharitis, which has resulted in pretty complete loss of the eyelashes, eversion of the edges of the lids and the puncta lachrymalia, overflow of tears, and a chronic catarrhal inflammation of the conjunctiva. About ten days before admission the right eye became inflamed and has been growing worse ever since, he is suffering great pain in and about the eye, with intolerance of light, and there is a good deal of muco-purulent discharge from the conjunctiva. In the lower and inner quadrant of the cornea is a large, oval, purulent infiltration, with some loss of substance at its centre, and a good deal of purulent material in the anterior chamber. Atropine, frequent cleansing of the eye with warm water, and occasional instillations of dilute chlorine water constituted the local treatment.

Oct. 8th.—The affection of the cornea having increased in size I decided to cut through it in the manner recommended by Sæmisch. The incision was made through the centre of the infiltration, from the margin of the cornea obliquely upwards and outwards, the counter-puncture occurring at a point just above and to the outer side of the pupil. The aqueous humour and hypopyon escaped from the anterior chamber, and formed the usual yellowish coagulum in the conjunctival sac. The after treatment was conducted in the manner already indicated, with

strict attention to keeping the conjunctiva free of discharge. Improvement was manifested from the first day, pain ceased, and the cornea soon began to clear up. The anterior chamber was re-opened several times and then allowed to close permanently.

On the 17th, I commenced the use of astringent applications to the conjunctiva, which were continued daily till the date of his discharge November 10th.

Some months later this patient presented himself for inspection. The eye had given him no further trouble since his discharge from Hospital. No trace of the incision was discoverable. A thin but rather large opacity occupied the lower and inner quadrant of the cornea, the curvature of which appeared normal; there was no synechia, vision, though somewhat impaired, was fairly good, and he could easily read ordinary print with the right eye.

Case II.—J. R., æt. 21, labourer, admitted into Hospital June 7th, 1878. The left eye has been inflamed for two weeks. There is an ulcer with a large surrounding purulent infiltration at the centre of the cornea, occupying at least one half of its area. The peripheral portion of the cornea is quite clear, and through it a corresponding part of the iris is visible, the two being separated by a shallow anterior chamber, the lower fourth of which is filled with a purulent material. The pupil and a good deal of the surrounding portion of the iris, were of course hidden from view, and I inferred from the shallowness of the anterior chamber that perforation of the cornea had taken place, but that the aperture was not sufficiently free to permit the whole of aqueous humour, and the inflammatory products contained in the chamber to flow out. Having seen iridectomy fail to afford relief under similar circumstances, I determined to try the effect of keratotomy, and accordingly divided the cornea in the horizontal meridian to such an extent that both ends of the incision passed through healthy corneal tissue. The wound was kept open for about a week in the usual manner, by which time the infiltration had lost its yellow colour, and the anterior chamber was free from pus. Strict attention to cleanliness, atropine instillation, and a compressive bandage constituted the other local measures. Though the pain and intolerance of light

which up to the time of operation had been pretty severe, were thereby considerably diminished, the eye continued in an irritable condition, and it was evident when the ulcer had healed that a complete anterior synechia had formed, for the relief of which, on the 20th of June, I performed an iridectomy downwards and inwards. From this time the eye steadily improved and the patient was discharged July 3rd, at which date he could count fingers at three feet distance, and the eye, though disfigured by a large central opacity of the cornea, was perfectly comfortable. Four months later the corneal opacity had diminished very considerably in size, and vision was so far improved that with this eye he could count fingers at eight feet distance, the disfigurement resulting from the corneal opacity can at the proper time be almost entirely removed by tattooing with Indian ink.

Assuming, as I think we are justified in doing, that in this case operative procedure was essential in order to prevent a further extension of the corneal affection, it may be argued that an iridectomy performed at once would have fulfilled every indication, and thus have obviated the necessity for a second operation. I will not deny the possibility, but at the same time I am perfectly certain that no better result could have been attained than that which was afforded by the plan of treatment pursued.

Against the first case no such objection can be made, since the one operation sufficed to effect a perfect cure. Seeing, as I do, a considerable number of eyes which have been allowed to perish in consequence of purulent inflammation of the cornea, and being fully convinced that the operation of keratotomy, if done in good season, is almost a certain means of arresting the disease, whether it be in the form of a creeping ulcer, an abscess, or a spreading purulent infiltration with ulceration, I have been induced to make these remarks with the hope that an operation which does not seem to be generally known, but which is at once simple, easy of performance, and efficacious, may receive a fair trial at the hands of every medical man, who, though accustomed to treat diseases of the eye, has hitherto not ranked this operation amongst the most important therapeutic measures at his command in this class of cases.

CASE OF ELEPHANTIASIS ARABUM, OF THE RIGHT LEG,

TREATED BY LIGATION OF THE FEMORAL ARTERY.

By D. C. MacCallum, M.D., M.R.C.S., Eng., &c.

Some time ago my friend, Prof. G. W. Campbell, sent me a number of the *St. Louis Medical Journal*, at the same time calling my attention to an article which it contained on Elephantiasis Arabum, from the pen of Professor Bauer, a gentleman well known to the profession in Canada. In this communication a chronological table is given of the known cases in which the operation of ligation of the main artery of the limb was performed for the relief or cure of the intractable disease under consideration, and Professor Campbell noticed that no mention was made of a case that was so treated in the Montreal General Hospital in the month of April, 1859, and which was the first operation of the kind performed after those of Professor Carnochan of New York, the distinguished surgeon who first proposed and carried into effect this bold and original treatment of Elephantiasis.

The truth is, the case has never been placed on record. Shortly after the operation I transmitted a brief account of it to Professor Carnochan, promising him to publish the case later and send him a copy of the article. The notes of the case, however, were mislaid, and I recovered them unexpectedly a few months ago. As this treatment is exciting some attention at present in the medical world I have thought that it would be well to publish the notes. They are as follows:

J. W., æt. 20, was admitted into the Montreal General Hospital, January 24th, 1859, suffering from Elephantiasis Arabum of the right leg. He states that this limb has been enlarged as far back as he can remember. His parents told him that the swelling first appeared after the subsidence of an eruption on the skin of the lower extremities. The limb has of late years increased much in size, and become weightier and more unmanageable. He has never felt any pain in it; but

has observed that after exposure to wet and severe cold, the affected part becomes more tense, and this is accompanied by a feeling of general uneasiness, and a feverish state of the system.

The Elephantiasis is confined to the right leg, and principally to the part between the knee and the ankle joints, although there is considerable swelling above the knee. The surface is rough and nodulated, and intersected by fissures varying in depth. From these fissures, at times, a thin discharge distils, which, on drying, forms brownish-looking scales. The skin and subcutaneous cellular tissue, are much hypertrophied, and exceedingly dense and inelastic. For a period of fourteen years he has not been able to flex his foot, in consequence of the resistance offered by the hardened tissues at the ankle-joint, and he has had but a slight degree of motion in the joint during that time. The relative dimensions of the two limbs are as follows :

Healthy leg measures in circumference,	Affected leg measures in circumference.
At the malleoli, 9 inches.	11¾ inches.
5 inches above do. 8½ "	12¾ "
8 " " " 10 "	14 "
12 " " " 10½ "	13½ "
At patella - - 12 "	14 "
Middle of thigh 13½ "	14½ "
Upper part - - - 16 "	16½ "

From the date of his admission until the 30th April, a period of three months, the patient was placed under what had been the most approved forms of treatment, but without deriving the slightest benefit from them. In the month of February a very large abscess formed in the upper part of the thigh of the diseased leg, which, in due time was opened, giving exit to a large quantity of fœtid pus of a greenish colour.

On the 30th of April, having called a consultation and obtained the consent of my colleagues, I ligated the femoral artery in Scarpa's triangle. The vessel was exposed without difficulty, and found to be perfectly healthy. The patient progressed favourably, and the ligature separated on the 21st day. Mea-

surements were taken on May 3rd, three days after the operation, and again on June 6th, when he was walking about the ward. The differences are exhibited in the following table:

Measurements 3 days after operation, May 3rd.		Measurements 37 days after operation, June 6th.	
At Malleoli,	11 inches.		10½ inches.
5 inches above do.	11 "		10½ "
8 " " "	13 "		11½ "
12 " " "	12½ "		11½ "
At Patella,	13 "		12 "
Middle of thigh.	14½ "		14¼ "

Some months after his discharge from the Hospital he was readmitted for abscess of the thigh of the right side. I met him two years after the operation, and on examining the limb I found it enlarged from œdema. The skin and cellular tissue had lost, however, all the characteristics of Elephantiasis. He informed me that so long as he kept the limb bandaged, the œdematous swelling was absent. He had become very dissipated in his habits and was a frequent inmate of the Montreal General and Hôtel Dieu Hospitals I am of opinion that had J. W. been a person of strictly sober habits, and had he given the limb proper support for some time, he would not have suffered from the œdema which frequently troubled him. It is quite possible. moreover, that the two large abscesses in the upper part of the thigh for which he was treated, had much more to do in causing the subsequent œdema than had ligation of the femoral artery,

INFLUENCE OF THE PIANO ON THE AFFECTIONS OF THE UTERUS.—Dr. Balastre terminates an article which he has published in the *Nice Médical* by saying that his meaning would be misunderstood if it were thought that he discountenanced music as a part of female education, or that he believed it to be the origin of uterine ailments. All he wishes to enforce is what observation has demonstrated to him—that in very nervous and impressionable women who are suffering from affection of the uterus, music may provoke and aggravate congestions of this organ, and that in advising the patient concerning her hygienic management this fact should be borne in mind. Moderation in the practice of music aad interruptions in its pursuit must be insisted upon while pursuing the ordinary measures of treatment; and by this means various accidents occurring during uterine affections will be obviated.—*Rev. Méd.*, April 1.—*Med. Times and Gazette.*

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Dislocation upwards and backwards into the Ishiatic Notch.—Reduction successfully practised by the Rotatory Method, on the thirty-second day after the injury.—By GEO. E. FENWICK, M.D. Reported by Mr. J. B. LAWFORD.

A case of this comparatively rare form of accident presented itself at the out-door department of the Montreal General Hospital, in a young man aged 21 years, and he was admitted into the house under the charge of Dr. Fenwick, on April 5th, 1878. The following details were obtained.

E. L., æt. 21, farm labourer, is of medium size, but strongly built. Has always enjoyed good health. No history of any constitutional diseases.

On the fourth of March last, as he was driving a sleigh load of bark along a country road, the sleigh upset falling against him and knocking him down on to his left side. He says that he fell on a large lump of hardened snow, which struck against the middle of his thigh, but he was under the impression that the dislocation was not due to the fall but was produced by his efforts to extricate himself from under the sleigh load. He was taken home and a doctor brought who attempted to reduce the dislocation by traction on the leg, but failed. The man was subsequently experimented on by two men and a woman, but their efforts were also ineffectual. He remained in bed for three weeks. During the first two weeks of which he appears to have suffered considerably, as by his own description "he was yelling all the time." At the end of the third week he began to hobble around, and in another week came to the Hospital.

On admission, his appearance was characteristic, there was great fixity of the limb, it being adducted and twisted over the other thigh. He hobbled along on one leg by the aid of a staff. The left leg was visably shortened and the foot inverted. On closer examination the toes of the left foot were seen to rest

on the instep of the right. The foot was also somewhat advanced and directed obliquely across the other. The left knee rested against the inner and anterior surface of the right knee, immediately above the patella. The axis of the left thigh was directed across the knee of the opposite leg. The knee-joint was kept in a semi-flexed position. The head of the femur could be felt by pressure on the lower part of the dorsum Ilii laying in the position of a line from the anterior superior spine of the ilium to the coccyx. The great trochanter was felt somewhat behind its natural position and nearer the anterior superior spinous process of the ilium.

Measurement showed the sound leg to be 34¾ inches from the anterior superior spine of the ilium to the internal malleolus; the same measurement on the injured limb was 34¼ inches. The distance from the anterior superior spine, to the great trochanter was 5½ inches on the sound side, and 5¼ inches on the injured side. There was no pain except on movement. The patient felt very well otherwise, but complained of weakness from remaining so long in bed.

Dr. Fenwick having examined the patient diagnosed dislocation "backward into the ischiatic notch." The dorsal dislocation below the tendon of the obturator internus of Bigelow.

On April 6th, the patient was placed under the influence of chloroform, Dr. F. proceeded to reduce the dislocation by the rotation method. On the first attempt the head of the bone slipped round the border of the acetabulum and entered the thyroid foramen. The characteristic features of that displacement were at once developed; by reversing the movements the head of the bone was returned to the position it formerly occupied. A second attempt was made, and the same result followed, and again was the bone restored to its abnormal position in the ischiatic notch. In bringing the head of the bone round a third time, the operator placed his hand firmly on the ascending ramus of the ischium when the bone slipped with ease into the acetabulum. The patient's legs were then bandaged together after being carefully padded at the knees and ankles, and he was placed in bed.

An hour after the Reduction he complained of great pain about the hip-joint, and kept up a low moaning. There was slight redness on the inner and upper part of the thigh just below the articulation, and tenderness on pressure everywhere in the vicinity of the joint. Temperature normal. Pulse 100. Was given Morph. Mur. gr. ½ hypodermically.

April 7th.—Patient complained of weakness. Slept very little, although he was given a draught of liq. mor. 3i. at midnight. Pain about the hip much less; redness has all disappeared. Skin dry. Tongue dry and slightly coated white. Complained of much thirst. Temperature 99⅘° in axilla. Pulse 120.

8th.—Much easier this morning. Slept well from a draught similar to that of the night before. There is still considerable pain on pressure about the joint, but especially half way down the anterior surface of the thigh. Thirst less. Temperature normal, and continued so from this time. Pulse 100.

9th.—Patient improving every day. Pain is still present on pressure, but is much less than formerly.

12th.—Bandages were removed to-day, for which the man was truly thankful.

15th.—Patient tried to walk a few steps to-day with the aid of crutches, getting along very well, and though, of course, stiff, experienced no pain.

The next day he left the Hopital, a very different-looking man from what he was when he entered it, and able to use both his legs, instead of hobbling along with one leg and a stick.

Case of Stone in the Bladder, with a very tight and firm Stricture of the Urethra. — Internal Urethrotomy.— Lithotomy.—Recovery.—Under the care of Dr. RODDICK. Reported by JAMES BELL, M.D., Assistant House Surgeon, Montreal General Hospital.

C. C., a young Englishman, 27 years of age, of haggard and anxious appearance, presented himself at the Montreal

General Hospital, on the 21st of June, 1877, suffering from retention of urine. His bladder was greatly distended and he was suffering excruciating pain. On attempting to relieve him with a catheter, it was discovered that he had a very tight stricture in the usual situation, about the juncture of the spongy and membranous portions of the urethra. After a prolonged and ineffectual attempt to pass a catheter into the bladder, he was admitted as an in-door patient. He was ordered a hot bath and a Dover's powder, and an hour later a second attempt was made, when after much difficulty a No. 1 catheter was passed, and a large quantity of purulent urine withdrawn. This gave him great relief, and for some days he did not require to be catheterized, though in the act of micturating the urine came away drop by drop, or at best, in a very weak and tiny stream.

On inquiring into his case more thoroughly, his family history was found to be bad, his mother and two sisters having died of phthisis. He was of medium size, good muscular development, and well nourished, and gave the following account of himself: That he had suffered from bladder irritation from childhood—from five or six years of age, and that on several occasions he had passed *per urethram* small stones, varying in size from a mustard seed to a small pea. He ran away from home and went to sea, at the age of 14 years, since which time he has led a very hard life. At 16 years of age he contracted gonorrhœa in China, and soon after syphilis, from which he recovered in about seven months. In June, 1876, he began to have difficulty in passing his urine and had to be catheterized then for the first time. About the same time he began to suffer from pain in the bladder and loins, which was aggravated by exertion, and several times he passed bloody urine after violently exerting himself, In the Autumn of that year (1876,) he was discharged from his ship in this city. During the winter months he did a little work but spent a good part of his time in the House of Refuge. He suffered a good deal, and was frequently catheterized in the out-door patient department of this Hospital, until as already mentioned, he was admitted on the 21st of June. A few days after admission his bladder was explored with a sound, and a

stone was discovered. His heart and lungs were found to be healthy but he had a cachectic appearance, and suffered from frequent chills which were followed by high fever, and he had to be catheterized from time to time. He was at this time under Dr. Fenwick's care. A consultation was called about the 10th of July, when, owing to his bad health and his troublesome stricture, it was not considered advisable to operate. He was accordingly kept in Hospital, and given generous diet and tonics, but did not improve. He had frequent chills followed by fever, and began to complain of pain and tenderness over his right kidney, while his urine contained from day to day a varying quantity of pus. From these symptoms organic disease of the kidneys, either of calculous or tubercular origin was suspected. About the end of September he came under Dr. Roddick's care. He, after having him under observation for a couple of weeks, decided that it was useless to wait for the symptoms to improve before operating, and determined to cure his stricture by internal division, and afterwards to perform lithotomy.

On the 4th of October, he divided the stricture internally with Teevan's urethrotome, a new instrument which he had just brought from London. A No. 10 catheter was then tied in for twenty-four hours. This caused a great deal of irritation by coming into contact with the stone whenever he moved in the bed. Next day it was removed and a No. 9 passed, and immediately withdrawn. On the 12th, a No. 11 was introduced, and withdrawn immediately. The catheter was passed daily until the 17th, when all irritation from the previous operation having subsided, the lateral operation of lithotomy was performed and the stone removed. No bad symptoms followed the operation, and from this time he rapidly improved. The wound closed rapidly and completely, the urine became clear, he had no more chills nor fever, and in a few days he was perfectly well. On the 7th of November he left Hospital to sail for England, declaring that he had not felt so well for years. The calculus was phosphatic, and about the size of a pigeon's egg.

Reviews and Notices of Books.

Cyclopædia of the Practice of Medicine.—Edited by Dr. H. VON ZIEMSSEN. Vol. XIV. *Diseases of the Nervous System and Disturbances of Speech.*—By Professor A. EULENBURG; Professor H. NOTHNAGEL, Professor H. VON ZIEMSSEN, Prof. F. JOLLY, Prof. A. KUSSMAUL, and Dr. J. BAUER. ALBERT H. BUCK, M.D., New York, Editor American Edition, 8vo. pp. xviii. 893. New York: WILLIAM WOOD & COMPANY, 27 Great Jones Street, 1877.

This is one of the most interesting and important volumes of the series. The opening article is by Prof. A. Eulenburg, on vaso-motor and trophic neurosis. Hemicrania, angina pectoris, unilateral, atrophy of the face, Graves' or Basedow's disease, progressive muscular atrophy, pseudo hypertrophy, and true hypertrophy of the muscles are the subjects touched upon in this paper. The various theories as to the cause of Basedow's disease are discussed and the author concludes in speaking of treatment that much is to be done in these cases by the persistent use of galvanism, applied to the sympathetic cervical ganglia, the constant current to be used, at the same time careful regulations should be enjoined as to habits of life, avoidance of all excitement and much physical exertion, a complete abstinence from all stimulating drinks, as coffee, tea and alcohol, in whatever shape, a mild, nutritous diet, composed largely of milk and vegetables, and a residence in the country, more especially mountain health resorts, with much open air exposure. According to the author the employment of iodine or its preparations in this disease is not only useless, but unscientific, and may be the source of mischief. The use of quinine and iron is alluded to, and they are of decided benefit when persevered in for some time, for they improve the general tone of the system. as there is usually much anæmia present. Nevertheless, the anæmia must not be regarded as the cause of the disease.

Professor Nothnagel gives a paper on epilepsy, and eclampsia. After some general introductory remarks on the subject, the author passes on to experimental researches, mentioning very fully those of Brown-Séquard, including his more recent publications, which are to be found only scattered through various periodicals; also those of Schiff, Westphal, Hertzig, and others

This paper is followed by one from the pen of Dr. J. Bauer. of Munich, on tetanus. The subject of increased temperature in this disease is gone into, and the conclusions arrived at are that no marked increase in temperature occurs, or only a very slight increase, and this especially in the evening. It has been noticed, however, that the temperature rises sometimes to an excessive degree, shortly before death, and continues to rise after cessation of life. This increase in temperature is supposed to be due to tonic spasm, but not wholly to this cause; indeed it is remarked that after death has taken place, and that all muscular contraction has ceased, the temperature still continues to rise, from this we are led to look for some other cause, and the author concludes that the excessive increase in temperature is due to irritation of the centres of innervation. Post mortem, increase in temperature is noticed in other diseases besides tetanus, but in tetanus only is it occasionally very great. This fact the author accounts for, after Fick and Dyblosky, by the setting free of heat during the stiffening of the muscles, or the coagulation of the myosin.

Catalepsy is the next subject discussed in this volume, Eulenburg being the author of the article; this is followed by the same writer's views on tremor, paralysis agitans, with an appendix on what Hammond has described under the name of athetosis. von Ziemssen gives us the next article on chorea. This is followed by one from Prof. Jolly of Strassbourg, on hysteria, and the last article, by far the most exhaustive in this volume, is from Prof. Kussmaul, and consists of some thirty-five chapters, the subject being the disturbances of speech; but not only does the author discuss the disturbances of speech as a result of some pathological change, he goes into the origin of speech, and accounts for it on physiological

grounds. It is a most learned article, original and practical in its conclusions, although at first the reader might be somewhat staggered at its abstruseness.

His observations on the localization of speech, are worthy of attentive perusal, and his chapter on Deaf Mutism and the education of deaf-mutes, shows the superiority of the German over other methods. This volume is fully as interesting as those which have preceded it. Throughout the interest is maintained, and it is in every respect a valuable addition to the series.

Clinical Lectures on Stricture of the Urethra and other Disorders of the Urinary Organs. — By REGINALD HARRISON, F.R.C.S., Surgeon to the Liverpool Royal Infirmary, and to the Liverpool Northern Hospital. 8vo. pp. 193. London: J. & A. Churchill, New Burlington Street: Liverpool, Adam Holden, Church Street, 1878.

Many of the lectures here collected into book form, have already appeared in the *Lancet* and other periodicals, and some of the cases reported have before been published. The author has collected them into book form with a view of expressing his own opinions upon certain points in practice, as well as to criticise the opinions of others.

In the opening lecture a few preliminary remarks are made on the ample opportunities enjoyed by the author, as surgeon to two large Hospitals, in a large sea-port town like Liverpool, for studying the surgery of the Genito-Urinary System. He limits the use of the term stricture to those cases in which there occurs an obstruction consequent on a change in the calibre of the canal from organic disease, spasm, and inflammatory œdema of the mucous lining do not constitute stricture in the true acceptation of the term. In referring to the causes of stricture, the author mentions a case, unique of its kind, which came under his observation, wherein during the operation for circumcision *the surgeon* removed a portion of the glans penis, together with the prepuce, and, as might be expected, a very tight stricture of the meatus resulted. On page five it is

remarked, in speaking of gleet, "it requires careful and well-considered treatment, and if it does not receive this—that is to say, if it is clumsily dealt with, or not dealt with at all—it most probably ends in the formation of stricture." This may be so, but we incline to the belief that in the majority of cases where gleet exists, it is kept up by the presence of stricture, that the canal has lost its resiliency, and that in consequence the last drop of urine is not expelled, this acts as a local irritant and keeps up the discharge which is thin and semi-purulent, but after all, to decide this point, we must first ascertain what we mean by the term gleet.

In the second lecture the author gives the surgical anatomy of the urethra, embodying the views and measurements of Dr. F. N. Otis of New York. Specific directions are given for the passage of instruments into the bladder, and the value of tracing the course of the urethra with the finger in the rectum is alluded to. The author remarks "Fewer false passages would be made in difficult cases of catheterism, if we bear in mind that we have the means of testing, in the deep portion of the urethra the course the instrument is taking, and of rendering assistance to the passage of the instrument through the stricture, by the introduction of the finger into the rectum."

The symptoms of stricture, and the consequences which follow to the genito-urinary organs, are next considered. The treatment of stricture occupies three lectures, and the author points out the danger of forcing a stricture; he remarks: "If you cannot pass a catheter by a legitimate amount of firmness and tact, you are pretty sure to do harm by such hap-hazard manipulations." Syme's operation for external division of stricture is discussed, as is also that by Wheelhouse, more recently proposed for impermeable stricture. There is an excellent description of the consequences of stricture, urethral abscess, fistula in perinæo, extravasation of urine, &c.

The various proposals for internal urethrotomy is next touched upon, and there are figured the instruments of Maisonneuve, Teevan, and Watson. The author also figures an instrument suggested and used by himself, which is a modification of

Teevan's urethrotome, having the advantage, however, of a double cutting blade, whereby the danger of hæmorrhage is lessened; the urethra is incised to a more limited extent at two points of its circumference, instead of deeply at one place, as must result in the employing any of the other urethrotomes in use.

There is an interesting lecture on foreign bodies in the urethra and bladder, with the report of some illustrative cases, these are very instructive. The author remarks on the value of the lithotrite in removing foreign bodies from the bladder, and he mentions an instance in which he seized a pencil case at first transversely, but by gradually rotating the lithotrite towards one side, while the pencil was kept within the blades of the instrument, he succeeded in reaching one end, when the pencil was removed point foremost, without any injury to the bladder or urethra. After discussing hypertrophy of the prostate, retention of urine, incontinence of urine, and the formation of calculi, he passes on in the fourteenth lecture to the consideration of cystitis, its various causes, washing out of the bladder, and topical applications to the bladder. In this chapter the author figures an instrument which he calls the pessary catheter, and which he has designed for the purpose of introducing into the bladder soluble pessaries of cocoa-nut butter, containing various medicinal reagents. This is a most ingenious instrument, and is so arranged, that the bladder by its use may be thoroughly emptied before depositing the pessary.

There is a chapter on calculous disorders, and with many others there is figured in plate H. Fig. 1, a calculus, which was removed, post mortem, from a patient admitted into the Royal Infirmary in a dying state. This presents a remarkable similarity in shape to a specimen which is in the collection at McGill University, and which was removed by the lateral operation from an aged man of 79 years.

In the last two lectures will be found a clinical account of tumours of the bladder and prostate, malignant, and non-malignant, villous growths, ulceration of the bladder, perforation and sloughing of the bladder.

The book is illustrated by 12 lithographic plates and some twenty-five wood engravings.

We commend this work to our readers; the teaching is sound, the style colloquial, and very readable. There is no one chapter from which the reader may not derive much instruction as being the plain enunciations of a thoroughly practical man, based on a large and varied experience.

The Action of Medicines. — By ISAAC OTT, A.M., M.D., Formerly Demonstrator of Experimental Physiology, University of Pennsylvania; with twenty-two illustrations. 8 vo. pp. 168. Pbiladelphia: Lindsay & Blakiston, 1878.

We are told, somewhat obscurely, in the preface to this work, that the first volume on the physiological action of medicines was by Professor Nothnagel. If by this we are to infer that Nothnagel was the first man to write on the physiological action of medicines on animals, we must enter a protest against any such assumption, and on reference it will be found, that in Pereira's classic work on Materia Medica and Therapeutics, the subject of the physiological action of medicines on man and animals was very fully discussed; furthermore it will be found that Pereira published the first edition of his work, in 1839, some two years before Nothnagel was born. To Bernard, perhaps is due the merit of first applying the principal of the action of drugs in elucidation of physiological facts.

The work before us is divided into four chapters. In the first will be found some practical hints on the method of studying the physiological action of medicines, including a description of apparatus to be used in carrying out experiments on animals. The author mentions the animals chiefly used for experimentation, and also the method of feeding and preserving them for future use. He then passes on to the method of securing animals for the purpose of conducting experiments, various apparatus are figured and their use explained. The subject of anæsthesia, artificial respiration, measurement of temperature, time measuring apparatus, electrical apparatus, method of ad-

ministration of medicines, and the antagonism of drugs are touched upon.

In the second chapter is to be found a short description of the action of drugs on the nervous system, on the motor nerves, effects on the spinal cord, on reflex action. The action on the medulla, cerebellum, cerebrum, on respiration, glandular action, and intestinal movements.

In the third chapter the effects on the circulatory apparatus is dwelt upon. Effects on the nerves of the heart, and on those of the blood vessels, blood pressure, rapidity of circulation and the measurement of arterial tension, &c., and subsequently the effect of drugs on the vessels of organs after their removal from the living body.

In chapter four the action of certain drugs on the lower animals and on man is discussed. The work is intended as an aid to the student of practical physiology, and will be found of much use. It is concise, but sufficiently explicit, and supplies a want which has been long felt.

A Guide to Therapeutics and Materia Medica.—By ROBERT FARQUARSON, M.D., Edin., F.R.C.P., LOND. Lecturer on Materia Medica, at St. Mary's Hospital Medical School. Enlarged and adapted to the U. S. Pharmacopæia. By FRANK WOODBURY, M.D., &c. 8vo. pp. 410. Philadelphia: HENRY C. LEA, 1877

It would seem unnecessary in the face of so many elaborate works on therapeutics already before the profession, to publish one more; nevertheless, the desire for knowledge is such that room exists for a work of this character. It gives in moderate compass all that is required, and to the student and busy practitioner will be of special use. In the preparation and arrangement of the work, the author does not desire to supercede or rival the more voluminous volumes of Ringer, Wood and others, but aims solely at presenting the subject under discussion in a brief form, seeking at the same time to avoid the encumbrance of botanical or pharmaceutical detail. After some preliminary

remarks, the author gives a few broad rules as a guide in the construction of prescriptions, and he correctly remarks, "that much professional credit may be derived from a good prescription, and as much damage done to the practitioner who orders for his patients mixtures, which are neither agreeable to the eye nor palatable to the taste." These rules consist in studying out the combination of drugs, their form of administration, the proper time for giving them, the dose, the intervals between doses, individual peculiarities, habits or idiosyncracy, the constitutional or toxic effect from small doses, chemical and physiological incompatibles, prescribing for children, prescription writing, weights and measures, observations upon, and general rules for doses.

In the first section there are remarks on certain classes of remedies, as, for instance, antidotes, acids, anthelmintics, antipyretics, antiseptics, counter irritants, diaphoretics, diuretics, emetics, ecbolics, expectorants, and purgatives. In this section are compared, side by side the physiological and therapeutical action of the class of remedies indicated. This same scheme is carried out in the second section, in which individual remedies are taken up and discussed in alphabetical order.

In section three we have a number of remedies which are in frequent use, but which are not in the primary list of the materia medica. Many of these remedies are not always to be found in works on the subject. The account of them therapeutically and physiologically is derived from the writings of those who introduced them to the notice of the profession. This section is followed by a series of questions, which the student of medicine is encouraged to answer, and which are on the border line between practical medicine and therapeutics. There is an index of diseases, and also a very full general index. We regard this little work most favourably, being impressed with the value of the method adopted in its arrangement. It is fully up to the most recent researches and observations of the experimentalist and clinical teacher. It is a work which will be of great service to the general practitioner, and the student of medicine will find it a short but valuable compendium.

Practical Gynæcology.—A hand-book of the diseases of women. By HEYWOOD SMITH, M.A., Oxon. Physician to the Hospital for Women, &c., with illustrations. 8vo. pp. 205. Philadelphia: LINDSAY & BLAKISTON, 1878.

The author tells us in his preface that he offers this present work to the busy practitioner as one systematically arranged. and not burthened with vexed questions of pathology. He likewise informs us that "of big books on Diseases of Women there is no end." But while the author has avoided giving us a big book, we fear he has erred slightly on the other side. It appears so boiled down as to present more the appearance of a list of women's diseases than a dissertation on them. Still, however, it is a useful little work, and we may hope to see it enlarge its borders in the next edition. In the appendix will be found a number of prescriptions for the preparation of pessaries, injections and applications to the cervix and os. It certainly will be found of use by the practical man, as it is more suited to the practitioner who possess adequate knowledge of the subject and who desires to have his memory jogged.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Treatment of Acne Rosacea.—(By Professor HEBRA, of Vienna.)—Hebra divides Acne Rosacea into three grades.

(1.) Where there are pustules, distended vessels and redness.

(2.) Where, in addition to the above, there is a general enlargement of the nose with alteration of shape caused by the growth of fleshy excrescences (Rhinophyma). The treatment that Professor Hebra now adopts in intractable cases is, to obliterate and destroy the distended vessels, and to relieve the follicles of their pustular contents, to make uneven parts smooth, and to remove the new growth of epidermis and connective tissue. He says: "The destruction of the superficial vessels, which are apparent to the naked eye as fine red stripes, or tortuous lines, is affected by puncturing them deeply with a double-edged lancet-shaped needle. To prevent this needle going

too far into the skin, it has a shoulder, two millimetres from its point. In performing this operation the patient should recline on a couch with the head on the raised end, the operator, standing behind the head of the patient, should at one time stretch the skin with his left hand while the punctures are being made, at another pinch it up to prevent too free bleeding, or put his finger in the nostrils when puncturing the alæ. The needle should be held between the thumb, index and middle finger, (like a pen), and the punctures, made as rapidly as possible, should be as deep as the distance between the point and shoulder of needle (3 mm.) To prevent the blood interfering with the operation the punctures must be commenced at the lowest part of the eruption and made in horizontal rows. The hæmorrhage is easily controlled by pressing on lint or wadding. This may then be changed, sticking plaster applied and the part left at rest 24 hours. The after treatment is simple; there is nothing to do but to take off daily the lint, wadding or plaster, and examine the punctures, and if, as is usually the case, they are not suppurating to apply dry lint again and bind up. If there are pustules apply ung. plumbi or ung. simplex. The repetition of the operation after the healing of the punctures is not necessary unless the destruction of the injected vessels has not been complete."

Prof. Hebra uses another method (Volkmann's) of treatment, which is more applicable to the severer forms of acne rosacea. This is shaving or rather scraping off the inflammatory products, hypertrophied and newly formed masses by means of an instrument shaped like an ear spoon, having sharp edges. The spoon is sometimes set at right angles to the handle when deep shaving is necessary. He says: "This operation, so simple, so easily understood, so successful in its action and so harmless in its results, so little painful in its comparison to the once necessary cauterization, is welcomed by dermatologists with joy and employed by them in numbers of cases with a beneficial result." The position of the patient during operation should be the same as when puncturing is performed. The new growth must be scraped, not cut off, and Prof. Hebra uses this method to remove the

new growths, in lupus, epithelioma, &c., and the infiltration of sycosis, acne, &c., and says we must not stop scraping till all the products of disease are removed. This method may also be employed to remove nævi, port-wine marks and superficial teleangiectasis. The epidermis only should be removed, and he says by the obliteration of the small vessels of the skin the redness disappears as well in acne rosacea as in superficial nævi. In severe cases of the third grade, where there are large fleshy excrescences, Prof. Hebra either cuts wedge-shaped pieces out of the skin of the nose and unites the edges or he removes the growths singly by an elastic ligature. One case is related in which he removed the end of a nose, which had grown to an enormous length, by the elastic ligature, with the best result.—(Condensed from the Wiener Medizinische Wochenscrift, No. 1, 1878.)

On Hydrobromic Acid.—In an article on this new remedy, by Dr. Edward Squibb, in the *Transactions* of the New York State Medical Society, he writes about it as follows:

The acid is a sedative neurotic, and its principal use, as developed up to this time, are as an occasional substitute or alternate for the bromide of potassium, sodium and ammonium.

It is well established that the bromine is the active medicinal agent whose influence is sought in the use of these salts, and it is also well known that the alkaline bases, and especially potassium, when given for a long time, are liable to enfeeble the muscular tissues, and produce other changes not desirable, through undue alkalinity of the blood and the secretions; and through the secretions to enfeeble the digestive and assimilative processes. It is true that the proportion of cases in which such effect comes into undue prominence is small, but to correct them when they do occur, and to forestall them when likely to occur, without suspending the bromine, whose continuous sedative action is often very important, this acid now comes into use.

It is, however, certainly not well adapted to very prolonged use, for like other so-called mineral acids, it would be very liable to interfére more with the normal processes of the economy than the bromine salts with alkaline bases. Therefore, for the present

at least, it must be regarded simply as an alternate for the bromides, for occasional and exceptional, rather than for general use. Such uses are, however, very important in the treatment of chronic affections of the nervous system, even when neither functional nor organic mischief is observed or apprehended, for several reasons, among which the disgust which patients often acquire for salines when long continued is not the least. In hospitals for the insane, especially in the epileptic wards, it should be very useful, both in effect and in facility of administration, because it can be given in the form of lemonade, if moderate small doses should prove effective.

It has been highly spoken of as a corrective and preventive remedy for the headache, ringing of the ears, and general cerebral distress, which often follows upon the use of salts of quinia, which should be called quinism, and not cinchonism. When given with or after the salts of quinia, the disagreeable head symptoms are said to be prevented. It should be remembered, however, that as a general rule, some degree of this quinism is necessary to indicate the full power of the quinia salts, and that irrespective of the quantity given, the full influence as an antiperiodic is never assured without some degree of the head symptoms, and that the dose required to produce the full antiperiodic effect varies very much in different individuals. and even in the same individual at different times. In those cases where small quantities of any of the salts of quinia produce head symptoms of disproportionate severity, so that the desired benefit of the antiperiodic cannot be attained because the sufficient dose cannot be borne, this acid is said to be very useful, either given with the quinia salt, or later, when the head symptoms begin. It is also said to be useful in nervous headaches and tinnitus from other causes than the administration of quinia salts, and to be effective when given at any stage of the affection.

Other uses to which the acid has been applied with alleged advantage are not yet confirmed.

The acid is not very easily administered in full doses, in consequence of the large dilution necessary, and the disagreeable effect of "setting the teeth on edge." A dose of fifty grains,

equal to 41.66 minims, and to twenty-grains of potassium bromide, requires not less than eight fluid ounces of dilution. And the dilution must contain not less than an ounce of sugar or two ounces of syrup, to make it easily drinkable. This will be found to be the principal drawback to the use of the acid, unless it shall be proved to be effective in smaller quantities than its equivalence to the bromides indicates. And this effectiveness in smaller doses is not only probable, but almost certain, if the experience of Fothergill and others may be trusted, since they give it in doses of one-eighth to one-fourth of those here indicated as being the bromine equivalent of potassium bromide. That is to say, the doses advised by those who appear to have used it with the best effects are equivalent to about six to eight grains of potassium bromide. This published experience would make the average dose of the acid here described, say about twelve to sixteen grains, or the bromide equivalent of only six to eight grains of potassium bromide. In the very limited experience of physicians around the writer these doses are too small, and twenty to thirty grains, equal to ten to fifteen grains of potassium bromide, are needed for a prompt sedative effect, while forty to fifty grain doses are not uncommon. And such doses have to be repeated at times in controlling the headache, etc., of quinism. Even such doses require a dilution of two to four fluid ounces of water, for easy administration.—*Medical and Surgical Reporter.*

Ophthalmoplegia Interna.—The following is an abstract of Mr. Jonathan Hutchinson's paper "On a Group of Symptoms indicative of Disease of the Lenticular Ganglion." After briefly alluding to the anatomy of the lenticular ganglion, the author stated that its destruction by disease might be expected to be followed by paralysis of three distinct muscular structures, the dilator of the pupil, the constrictor of the pupil, and the ciliary muscle. Under such circumstances the pupil would become motionless, and the patient losing the power of accommodation, would be unable to read with spectacles. For this condition involving paralysis of all the muscular struc-

tures within the eyeball, the term ophthalmoplegia interna was suggested, while that of ophthalmoplegia externa was proposed in contra-distinction for cases in which all or most of the muscles moving the eye-ball were involved. The author expressed his belief that examples of both these conditions were met with occasionally in practice, and that the features of each were peculiar and of great interest to neuro-pathologists. His conjecture was, that when ophthalmoplegia interna existed alone—that is, unattended by paralysis or defect of any of the external muscles of the eye-ball,—the disease was in all probability, in the lenticular ganglion itself. In venturing upon this diagnosis, as great importance was to be attached to the absence of some symptoms as to the presence of others. If disease existed implicating the nucleus, or any part of the trunk of the third nerve, and thus paralysing the constrictor of the pupil, there must necessarily be defect of some of the external muscles of the eye-ball. The paper next proceed to narrate the details of eight cases in which the condition referred to was present. None had afforded an opportunity for dissection, and the diagnosis for the present must be held to be conjectured only, It was observed, however, that the cases bore a very strong resemblance to each other. In none of them was the patient seriously ill, and in but two were there definite indications of implication of other parts of the nervous system. In none did the disease of the nervous system whilst the patient was under observation extend, a fact which might, it was suggested, be in part accounted for by the fact that specifics were used in all. Of the eight cases, in five both eyes were affected. It appeared highly probable that syphilis was in most the remote cause. In three out of the eight there was no history of syphilis, but in none of these were the facts conclusive as to the negative. All the patients were of an age at which syphilitic affections of the nervous system are common. The eldest was forty four, the youngest twenty-seven. In one case the author had himself attended the patient for severe syphilis four years before the eye symptoms began. Attention was especially asked to the fact that in many cases the paralysis of the iris, preceded that of the ciliary muscle,

and was almost always in excess of it; and further, that under treatment the ciliary muscle might regain its power, whilst the iridoplegia persisted. In no single case was the failure of accommodation the first symptom. A suggestion was made as to the possible association of this group of symptoms with the early stage of locomotor ataxy, especially with that form of it which appears to be connected with Syphilis.—*The Lancet.*

Early Diagnosis of Stone in the Bladder.—Mr. TEEVAN read a paper on this subject. On the arrival of a stone in the bladder, it usually soon gave notice its advent. The larger the stone was permitted to grow, the more trouble it gave in its removal. If treated when small it could be dealt with satisfactorily. As to the amount of pain produced, a small oxalate of lime calculus would give rise to much pain while a large smooth stone behind the prostate caused but little suffering. When the stone was small, there was often difficulty in micturition, from the stone plugging the urethral orifice. This was more apt to happen with boys than with men. The amount of pain produced by stone varied with the habits of life. Hunting often elicited early evidence of the presence of stone, and so had saved many a life. The blood passed with stone was by drops at the end of the act of micturition. Changes in the urine itself were of little value diagnostically. In children, incontinence of urine was often present with calculus; here the stone passed into the prostatic portion of the urethra, and the urine trickled past its sides. Some incontinence was of great diagnostic importance. The family history and the patient's history were often of much service. Rarely more than four of the above symptoms were found together in any one case. In stone-cases, there was little complaint at night, while in prostatic cases the trouble at night was usually great. Motion aggravated the symptoms and the pain in stone cases, but did not affect stricture-cases. A stiff bolster under the patient's buttocks was useful, at the time of sounding. The finger in the rectum, and a short beaked sound, were of service. It was well to stand straight before the patient, and not on one side. By so doing,

it was easier to bear in mind the three long prominences of the pelvis, viz., the sacrum and the tuberosities of the ischia.—The President referred to the late Mr. Liston's diagnosis by asking the patient to jump down from a chair. The patient emphatically refused..—Mr. Giles, Dr. Stewart, Mr. Caird, and Dr. Wiltshire took part in the discusion which followed; after which Mr. Teevan replied, and the meeting adjourned.—*British Medical Journal.*

Oculo-motor Paralysis of the Optic Disc.—(Probably due to sympathetic growth.—Under the care of Dr. LEARED).

H. T., admitted on December 5, 1857, aged twenty-eight; married five years; has one child four years old, quite healthy; had two miscarriages. She states that she was in fairly good health until ten days ago (November 25th,) when she was seized with lancinating pains in the left eye, and around the left orbit and in the temporal fossa. For two or three days the pain greatly increased, and was referred especially to the eye-ball. During this time she noticed that the upper lid began to drop. The pain then ceased, but with this cessation complete ptosis set in, and sudden attacks of dimness of vision every now and then supervened. There is a history of syphilis followed by secondary symptoms, but none of a specific character have appeared for about two years. She has, however, suffered at intervals during this period with difficulty of opening the mouth; this has always yielded to medicine. In connection with the above attacks she has had fulness in the left temporal fossa with some pain. Present Condition: Fairly well nourished; chest sounds normal; urine not albuminous; complete ptosis of the left side and fixation of eyeball, a slight tremulous action being the only result of any attempt to move it; left pupil responds to light very feebly; same size as other. Mr. Lowne, Ophthalmic Surgeon to the Hospital, examined the patient's eyes, and found that the left disc was atrophic and pearly white, the veins and arteries reduced in calibre, details of lamina cribrosa and that the right disc was congested at its edges, too

white at its centre. The patient was placed on the biniodide of mercury, and iodide of potassium, which treatment, considering the urgency of the symptoms, Dr. Leared determined to push as rapidly as possible. The levator palpebræ in a few days regained partial power, but the eyeball remained more or less fixed, and sight was worse. The medicine had at times to be decreased, and even discontinued, owing to the specific action of the mercury. Movement of the eyeball gradually returned, commencing with contractility of external rectus, and on January 5th, one month after admission, the levator had regained normal power, and also the several muscles attachad to the eyeball. She could, however, discern no object whatever with the left eye. The note of January 12th, says: "The levator and muscles of the eye act well, as also the pupil, but vision is almost entirely gone. Left disc perfectly atrophic, quite white; right disc somewhat too red. No exophthalmos." The patient was discharged on January 25th; the action of the muscles was then normal, but vision was completely lost. The pathological view taken by Dr. Leared of the case was that a syphilitic growth, probably of a gummatous nature, had been rapidly formed in such a position as to involve the optic nerve as well as the third, fourth, and sixth nerves. Iodide of potassium and the biniodide of mercury were given every four hours in increasing doses until twelve grains of the former and one-eighth of a grain of the latter had been reached. The treatment seemed to confirm the diagnosis. Dr. Leared remarked that while the motor power of the eye was restored, it was interesting to observe that the presumably higher nerve function of vision seemed irreparably destroyed, either by pressure, that had probably been removed, or else by the action of the syphilitic poison.—*Medical Times and Gazette.*

Polyuria Successfully treated by Ergot of Rye.—The polyuria in a case reported by Dr. Rendu (*France Médicale*, Feb. 27th, 1878), was accompanied by supraorbital neuralgia, vertigo, with loss of consciousness, excessive thirst and hunger, with emaciation and loss of

strength, although the patient consumed a considerable quantity of food. The urine contained no trace of sugar; the quantity was about ten quarts a day. The urea eliminated by this means in the twenty-four hours amounted to from about 1,250 to 1,400 grains. Before having recourse to ergot of rye, tincture of valerian was first tried for this patient, in the dose first of 15 minims, and soon afterwards of half a drachm. Under the influence of this treatment, the urine diminished by nearly a quart. Sulphate of atropine, in the dose of one *millogramme* (.015 grain), at first, then two, daily, produced a similar improvement; but no advantage was found in persevering in this course, since the appetite diminished with the valerian, and the thirst increased with atropine. Ergot of rye was then tried. The success with this agent was remarkable. In eight days the urine fell to 1,600 *gram.* and the urea to 15 *gram.* in the twenty-four hours; the emaciation was stopped; the strength returned; whilst the thirst and the excessive desire for food also disappeared. Dr. A. Costa, (*New York Hospital Gazette*, Feb. 15th,) reports also a case of a diabetes insipidus, with the excretion of ten pints of urine daily, without sugar or albumen, marked by great emaciation; and states that he treated the patient with fluid extract of ergot, which treatment had been followed by striking success; *i. e.*, complete cure in two cases in private practice. Dr. A. Costa put the patient upon an initial dose of half a drachm of the fluid extract thrice daily, the dose to be increased gradually, first to one drachm, and then to two drachms. There was at once apparent great reduction in the quantity of urine passed daily. From ten pints it fell to six pints daily; then to three, where it remained. Even before reaching the present limit, he ordered the dose to be gradually reduced, first to one drachm, and then to half a drachm. Then it was stopped altogether, mint water substituted in its place. For the past two weeks he had no ergot, and might be considered permanently cured. The amount of urine daily passed varied between two and three pints.—*British Medical Journal.*

Administration of Dialysed Iron.—In the *Medical and Surgical Reporter* for April 6th, appears a letter from M. Diehl, M.D., of Jeddo, Pa., in which that gentleman proposes the following novel method of administering dialyzed iron. The case reported was one of anæmia, with strongly marked hysterical symptoms, and such an irritable condition of her stomach as to preclude the internal use of iron :

In the early part of October, 1877, I procured some dialysed iron, from Wyeth & Bro., Philadelphia, with the purpose of giving it hypodermically, as the patient's stomach was then too irritable to bear large or frequently-repeated doses of the medicine. I commenced by giving eight minims, combined with an equal quantity of water, one, two, three and four times a week, as my time and the patient's inclination permitted, the injections being usually given in the fleshy part of the arm. The iron, in most cases, produced very little irritation beneath the skin, and in no case did inflammation or abscess supervene. The dose of the medicine was laterly increased to 16 minims, with water in the same proportion, and given with the former frequency, or rather infrequency, and at the end of four months I saw a marked change in the appearance of my patient; her stomach was less iritable, and she can at present eat an ordinary meal of mild, nutritous food, very seldom vomiting; her menses have returned more regularly and more natural in appearance; she has had no return of the convulsions for nearly two months, though she says that she has felt them slightly on several occasions. Sewing, and light house work she can now do without much fatigue, and is free to a great extent, from those severe pelvic pains which formery caused so much annoyance and sufferiug. I feel very much gratified with the result obtained by the use of this preparation of iron, and should not hesitate to administer it in the same manner in other cases, should the opportunity offer.

Another means of which I have availed myself to introduce this iron into the system is to saturate a small pledget of cotton with about thirty minims of it, and introduce it into the vagina, where the mucous membrane offers a large surface for its absorption. I think I have seen a few people benefited by this procedure

Treatment of Exophthalmic Goitre by Galvanization.—In the *Gazette Medica Italiana*, Dr. D'Ancona relates the case of a woman aged nineteen, suffering for two years from exophthalmic goitre, the usual train of symptoms being well-marked.

In spite of all kinds of treatment she had arrived at such a stage of cachexia that her life was despaired of. At length galvanization with ten elements of Stöhrer's portable battery was tried, and on finding that it was followed by rapid signs of amelioration, it was persevered in for five months. During this time one hundred seances, lasting from three to five minutes each, were given to the patient. She gained thirty pounds in weight; her face lost its paleness, and regained its natural colour; the exophthalmia disappeared almost completely, as well as the enlargement of the thyroid body, and the pulse fell from 130 to 90. Menstruation was restored, and in every respect the health of the patient was entirely re-established.—*Medical and Surgical Reporter.*

Gelseminum Sempervirens in Neuralgia.—The action of this drug in affections of a neuralgic character, says the *Medical Examiner*, has recently been studied by Dr. Emery-Heroguelle, who made it the subject of his inaugural thesis. A summary of his observations appeared in a recent number of the *Paris Médical*. Taken in a large dose gelseminum produces frontal headache, stunning, visual troubles, diplopia, contraction of the pupil, and dropping of the upper eyelid. There is also weakness of the legs. The author reports six cases of intoxication from the drug, taken in mistake. Gelseminum is administered in powder or in pills, in the dose of three-fourths of a grain to three grains of the powder of the roots. It may also be given in the form of tincture, made with 100 parts of alcohol at 60° to 5 parts of the powdered roots. The dose is from 40 to 80 drops. A syrup may be also made by adding 50 parts of the tincture to 1000 of the simple syrup. M. Dujardin-Beaumetz has also had prepared an aqueous extract and an alcolic extract. M. Emery-Heroguelle reports

thirty-one observations collected in the service of M. Dujardin-Beaumetz, and from foreign journals, all of which refer to the action of the drug on neuralgia. From an analysis of the results, it appears that gelseminum may be especially looked upon as an anti-neuralgic; that it acts favorably in cases of dental neuralgia of the 5th pair, of the frontal, temporal, supra-, and infra-orbital nerves, the brachial plexus, the intercostal and ilio-lumbar nerves. Sciatic neuralgia appears to resist, rather more than other neuralgias, the calming effects of this tincture. Dr. Ortille, of Lille, however, succeeded in curing with this remedy a patient who had suffered for a long time from sciatica which resisted all sorts of therapeutic means. The author considers gelseminum to be a powerful sedative in neuralgia, especially in those varieties which are not accompanied by that local fluxion in the effected point. Favourable results have also been seen in hemicrania.—*Medical and Surgical Reporter.*

Poisoning by Digtaline.—Recovery.

In *La France Médicale* for 13th April, M. G. Béringer reports a case of poisoning with digitaline, which was admitted into the Hôpital Saint Louis under the charge of Dr. Hillairet. The particulars are as follows:

C., a female aged 28 years, was admitted into the hospital on the 26th Febraary, 1878, suffering from symptoms of poison. Some time before she had been in the hospital under treatment for some cardiac affection. On her return home she became so depressed in spirits that she determined to destroy herself, and for this purpose procured 74 granules of d'Homolle and Quivenne, each containing a milligramme of digitaline. She swallowed 14 of the granules on the 25th of February and the remaining 60 the day following. Shortly after swallowing the last dose she lost consciousness, and within one hour she was brought to the hospital. On admission the symptoms observed were, face pale and bathed in perspiration, apparently unconscious and unable to stand, two persons had to assist her to her bed. There was pain in the head and stomach and after getting to bed violent vomiting, chiefly of bilious matter, set in.

These efforts at vomiting were accompanied with pain in the stomach, dizziness, buzzing in the ears, loss of sight, dilated pupils, pulse weak but regular and about 40 in the minute. There was a harsh systolic murmur at the apex of the heart. An emetic was prescribed and strong coffee given *ad libitum*. The vomiting continued throughout the night at intervals, she did not sleep and in the morning the extremities appeared much congested, and she complained of a pricking sensation in her hands and feet, whieh was augmented on pressure—had passed no urine.

Feb. 27. She appeared much weaker, was unable to raise her head, vomiting continued, pain complained of along the vertebral column, the arms and legs were cold to the touch and the sense of pricking more extensive, Before taking the granales the catamenia had set in, but since, the flow had been quite arrested. The vertigo, ringing in the ears, loss of vision and pain in the head were of the same intensity. The pulse was still weak, slow, 40 in a minute but very regular. Temperature in the mouth, 36° 8′; in the axilla, 37°. During the day from 150 to 200 grammes of urine was passed, which gave a hervy deposit of urates but there was neither sugar nor albumen in it. During the night there was a marked improvement in her condition. Vomiting continued but at longer intervals, she had some sleep, the extremities were less cold, the pain in the head was less intense but the vertigo much the same, pulse 44 in a minute, of the same character and the temperature was the same as in the morning.

28*th*. The report is much the same. There is still great prostration, her movements are sluggish and painful, vomiting persists less often, and there is diarrhæa, pulse 50, weak but regular, temperature in the mouth, 36°4′, in the axilla, 36°2′. The coffee was continued and an injection containing morphia was ordered as she had passed three liquid stools. At night she was quieter, inclined to sleep, vomiting at longer intervals, sight improved, ringing in the ears gone, less pain in the head, but still marked, in the precordial region urnie scanty. Temperature the same as in the morning.

March 1*st*. Is much improved, feels stronger. The pain in the head is less, vision no longer impaired, vomiting has stopped, sleep calm, and she complains ouly of diarrhœa, which is not distressing. Her pulse remains slow and weak, 44 in a minute, but very regular. Catamenia returned to-day.

From this time she progressed favourably, and she was discharged from the hospital on the 6th of March, at which time her pulse was regular, somewhat stronger, and 60 in a minute.

Cæsarian Section And removal of the Uterus.—Prof. Späth related the following case to the Vienna Medical Society *(Allg. Wien. Med. Zeit.*, January 22.*)*: A woman, aged 40, was admitted into his clinic pregnant with her tenth child. She had borne five living childen, had aborted three times, and in her last labour the child's head was perforated. For the last five years she had suffered from osteomalacia. She was pale and considerably emaciated, suffered from a considerable bronchial catarrh, and there was much albuminuria, together with œdema of the lower extremities. On examination it was found that so great a degree of contraction of the pelvis existed that the Cæsarean section was absolutely indicated. Endeavours were made, without much success, to increase her strength while she was kept in a separate room awaiting the occurrence of pains.

After mature reflection, guided by former experience, Prof. Späth resolved that he would perform the Cæsarean operation under Lister's method; and in the case of the uterus not contracting completely, and thus endangering the occurrence of subsequent hæmorrhage, he would proceed to its entire removal. Although every case of Cæsarean section performed in the Vienna Lying-in Hospital during the last century had terminated fatally either from scepticæmia, peritonitis, or hæmorrhage, yet, encouraged by the success of Péan and Porro in their cases of removal of the uterus, he hoped by the aid of Lister's method, and the prompt extirpation of the uterus if neccessary, to secure a better issue in this case. Accordingly, on June 2, 1876, labour pains having become active, he performed

the Cæsarean operation, and removed a living child without any difficulty. An injection of ergotin had been previously made in order to secure energetic uterine contraction ; but, as this did not take place, and as considerable hæmorrhage occurred, which iced water failed to arrest, the extirpation of the uterus was resolved on. The uterus having been secured in the neighbourhood of its neck by the chain of the écraseur, and raised up from the wound, Prof. Spath separated its body from the neck by some strokes with the scalpel. The cavity of the abdomen was carefully cleansed, and the wound was united, securing the pedicle at its lower angle. The whole operation scarcely occupied an hour. The patient soon came to, and complained of but little pain. The subsequent course of the case was most favourable, the highest temperature being 38·6° C. The albuminuria and œdema disappeared. The patient's strength was kept up by champagne, and the catarrh, which had been very troublesome, diminished. On the tenth day the end of the pedicle fell off; and on the thirty-eighth day after the operation the patient was able to stand, and eleven days afterwards to walk in the garden. On September 18 she was discharged cured. In October the small fistula which remained after the union of the rest of the wound had completely healed, and the patient was rid of all her suffering.

Prof. Späth exhibited the patient to the Society, then some eighteen months after the operation, in the enjoyment of complete health, the pains caused heretofore by the osteomalacia having disappeared. On examination the freely moveable cervix could be felt high up, but no exudation was perceptible beyond. Prof. Späth believes that this procedure will be found to deserve adoption in preference to simple Cæsarean section. The wound in the uterus is definitively smaller, and can be submittted to external treatment, and uterine hæmorrhage and endometritis become impossible (nor can the woman, we may add, become again pregnant, as sometimes happens notwithstanding the danger that has been run in Cæsarean section).—*Medical Times and Gazette.*

The Actual Cautery in Chronic Joint Disease.—C. Jaffé refers to the excellent results recently obtained in chronic diseases of the joints by Richet, Julliard, and Kocher from the employment of the actual cautery. The most convenient form of applying it, he considers to be the thermo-cautery of Paquelin, a strictly antiseptic method of treatment being subsequently adopted. He observes that with the aid of percussion of the bones it becomes in many instances possible to determine the precise seat of the most intense processes of inflammation, and that in cases of primary or secondary central osteitis, the seat of the disease may be attacked with the thermo-cautery, either with or without previous incision and removal of the affected part, and that thus further michief may be averted and all danger of secondary implication of the joint avoided. He gives a series of cases in which this plan of treatment was adopted with the best results. —(*Inaug. Diss. Strassburg*, 1877, *and Centrablatt f. d. Chirurgie*, 4, 1878.)—*Practitioner.*

Treatment of Transverse Fracture of the Patella.—At a late meeting of the Clinical Society, the President, Mr. George W. Callender, brought a patient fittted with an apparatus which he had employed for some time past, at St. Bartholomew's Hospital. It consisted essentially of a sheet of plaster fitting to the thigh, and extending to the upper margin of the patella, with loops on either side of that bone, and a canvas slipper between which, acting from the sole of the foot and the loops in the plaster, such extension was made by means of pulleys as suffices to draw the upper fragment down to the lower portion of the broken bone. It was easy to regulate the tension, and when it was thought well for the patient to get up, the apparatus was left on, as it acted just as well when the man was walking about as it did whilst he was recumbent in bed. Practically the appliance had been found to insure very good results.—(*Medical Times and Gazette*, March, 2, 1878.)—*Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1878.

THE BRITISH MEDICAL ACT AMENDMENT BILL.

There appears to be an earnest desire to establish in Great Britain conjoint examining boards, one for each division of the United Kingdom, and it is quite possible that the measure may carry during the present session of the Imperial Parliament. The Bill was introduced into the House of Lords by the Lord President of the Privy Council, His Grace the Duke of Richmond and Gordon. The bill was read a second time on Monday, 15th April. On this occasion His Grace made the following remarks which we take from the *British Medical Journal* of April 20th:

"The history of the Bill was this. In the month of May of last year, he received from the General Medical Council through its President—of whom one could hardly say too much either from a professional point of view or in reference to the manner in which he discharged his duties as President of that body—a memorial in which he was asked to deal with five points: first, the foreign and colonial degrees; second, the registration of the medical qualifications of women; third, the appropriation of penalties under the Act; fourth, midwives; fifth, the lunacy laws. It is a remarkable fact that the conjoint scheme was not included in that memorial of the Medical Council. He did not say that council was not alive to it; but certainly the question was not brought under the notice of the Medical Council. He was quite willing to admit that if there were an uniform and satisfactory test, more especially with this Bill, it would be possible to deal with unqualified practitioners in a more stringent manner than they could now be dealt with, and he thought it possible that the best mode for having such a test was for a conjoint scheme. His noble friend when filling the office which he had the honor to occupy had endeavoured to legislate on the subject, and his experience in 1870, had led him to very candidly acknowledge that the task was no easy one. There were a number of interests which required considerable attention in order that a means of reconciling them one with the other might be found. And it was by no means clear that success in that direction was attainable. In England the difficulty in respect of a conjoint scheme was not so great. The Universities of Oxford and Cambridge

did not object to such a scheme. In Ireland, again, as all the medical bodies were more or less centered in Dublin, he did not imagine there would be any great difficulty. In Scotland, however, the case was otherwise. There were the College of Surgeons, the College of Physicians, and Faculty of Physicians in Edinburgh; the Universities of Edinburgh, Glasgow, Aberdeen, and St. Andrew's—all of which would be very much affected by a conjoint scheme. The fact was—so desirous had he been of, if possible, coming to a conclusion which would enable him to legislate on the difficult subject—that he had adopted the alternative his noble friend condemned very severely, and made the provision as to a conjoint scheme permissive for the three parts of the United Kingdom; and in order to meet the objection to the provision being only permissive, he had raised the qualification of medical practitioners by providing that no person could be placed on the Register of the Medical Council who did not possess two qualifications—one in surgery, and the other in medicine. He was quite ready to admit that this was not the best solution of the difficulty, but it was a step in the right direction supposing that it was not possible to insert in the Bill a compulsory clause, for the three parts of the United Kingdom. He was aware of the objection taken to the Bill by the medical bodies to which his noble friend had referred, and he was far from saying that there ought not to be a conjoint board. He thought it would be dishonest of him to say that it would not be an advantage to the country: but it was not always easy to carry out by Act of Parliament what one thought desirable. The clause in the Act referring to the medical examination of women was inserted to cure a technical defect in Mr. Russell Gurney's Act, and would not render it more difficult for women to enter the medical profession, except inasmuch as it raised the standard of qualification for registration by requiring a double qualification from all persons who sought to be put on the Register.

The Bill was then read a second time.

At the session of the General Conncil of Medical Education and Registration, the bill as introduced before the House of Lords, was discussed clause by clause, and adopted. In reference to the conjoint examining boards the following motion by Dr. Humphrey. seconded by Sir James Paget, was carried by a large majority of the Council:

"Whereas, in 1870, this Council passed the following resolution by a large majority, and after much deliberation: 'That this Council is of opinion that a joint examining board should be formed in each of the three divisions of the kingdom, and that every person who desires to be registered under any of the qualifications recognized in schedule (A) to the Medical Act shall be required, previously to such registration, to appear before one of these boards and be examined in all the subjects which may be deemed advisable by the Medical Council; the rights and privileges of the universities and corporations being in all other respects the same as at present;' and whereas the council has subsequently sanctioned a scheme for an examining board for

England made in conformity with that resolution; the Council adheres to the principle of that resolution, that it is of opinion that no medical legislation relating to examinations will be satisfactory which does not provide for the formation of an examining board in each of the three divisions of the kingdom, and direct that every person who desires to be registered under the Medical Act shall be required to appear before one of these boards and be examined in the subjects which may be deemed necessary by the Medical Council."

The discussion, as reported which followed on this motion, is remarkably interesting. The Scotch and Irish representatives opposed the adoption of the conjoint scheme, as degrading their university privileges, and it would appear that some of the English colleges seem unwilling to surrender privileges which they have held for centuries. To soften the agony of severanee of those privileges, the provisions of the bill as introduced, are permissive and not compulsory. Turning again to the report of Medical Council, we observe what more especially affects our own graduates. The motion, as adopted, reads as follows:

"That when a person who has been a bona-fide resident in a British possession outside the United Kingdom, shows that he is of good character, and holds a recognized diploma or diplomas (as hereinafter defined) granted in British possessions, such person shall, upon payment of the registration fee, be entitled, without examination in the United Kingdom, to be registered as a colonial practitioner in the Medical Register."

This is satisfactory as far as it goes, but we are unable to give our readers the desired information of what constitutes a "recognized diploma." In Canada we have no uniformity in this respect, a diploma or degree does not give any right to practice, it is merely an evidence of proficiency, but the holder must possess a license to practice before he can do so legally. Again, the method of granting that license *ad practicandum* is not uniform throughout the Dominion. In Ontario the candidate must pass an examination before a central examining board This is the only condition required, provided he (the candidate) can give evidence of regular study at a recognised college or university. In our own province he is required to present his diploma and pay fees, and satisfy the board that he has obtained his diploma after a regular stated term of study, but no examination is exacted, provided the diploma gives evidence of his holding the double qualification.

McGILL MEDICAL SOCIETY.

The first meeting of this Society for the Summer Session took place on Saturday, April 20th, at 8 P.M., Mr. Sutherland, Vice-President, in the chair, in the absence of Dr. Osler.

After the reading and confirmation of the minutes of the last meeting, the following gentlemen were proposed for membership: Messrs. B. W. Burland, McCully, T. L. Brown, Spencer, R. C. MacDonald, Burwash, McCullough, Lloyd, J. J. McCaffrey, Williston, and J. Smith.

The Librarian reported that the Society now took seven medical journals for circulation among the members.

The election of officers for the ensuing session then took place, resulting as follows:

President, Dr. James Bell; 1st Vice-President, Mr. W. R. Sutherland; 2nd Vice-President, Mr. Thomas Gray; Secretary, Mr. Hans Stevenson; Treasurer, Mr. Gurd; Librarian, Mr. Mignault. Councillors: Messrs. Lawford, Imrie, and Small.

Mr. Gray then described a heart met with in a subject dissected by him during the winter, and which presented extensive disease of the aortic valves, these structures being converted into irregular granular masses. The walls of the heart were flabby; those of left ventricle did not appear much hypertrophied. No dilatation. Other valves normal. Liver and spleen enlarged and firm.

A short discussion took place on Phthisis consequent upon Pneumonia, after which the meeting adjourned.

APRIL 27th, 1878.

The regular meeting was held this evening, the President, Dr. James Bell, in the chair.

The minutes of the last meeting were read and confirmed.

Mr. C. A. Weagant was proposed for membership, and the gentlemen proposed at the last meeting were then ballotted for, and unanimously elected.

Mr. Sutherland read a paper on Lithotomy, giving a sketch of the history of the operation from the earliest times, and a description of the instruments employed by the older surgeons; concluding with the notes of a case in the Montreal General

Hospital of stricture, with stone in the bladder, in which Dr. Roddick successfully performed the operation of urethrotomy and lithotomy. In the discussion which followed, Dr. Osler referred to a paper by an Indian Army Surgeon in the *Dublin Journal*, 1871, descriptive of the native stone cutters of India, who operated with remarkable dexterity and with a measure of success quite unknown to the surgeons in Europe, the mortality being only about 1 per cent. Certain districts in India were notorious for the prevalence of stone, and Surgeon-Major Harvey of the Indian Army, while passing through here a a few years ago, had mentioned that some of the army surgeons reckoned these cases by hundreds, and he himself brought a cabinet of 79 stones obtained during two years sojourn in a stone district. Of these cases eight only were lost.

Mr. Small asked whether the residents of any district in Canada were more subject to stone than those of others.

Dr. Ross said he did not think so, and remarked that stone in the bladder was not a very common disease here.

Dr. Osler exhibited sections of the anterior tibial artery occluded by arteritis obliterans. The specimen was from a a woman aged 73, the subject of dry gangrene of the foot, for which Dr. Fenwick had amputated the leg just below the knee. On carefully dissecting the arteries it was found that the ant. tibial was pervious as far as the middle of the leg, while here in an extent of ½ of an inch its lumen was almost completely closed by a chronic arteritis. Above and below this point the artery was empty, the walls rigid and thickened. The dorsalis pedis and dorsalis hallucis were also empty, the latter being closed by a small thrombus at the limit of the gangrenous portion. Sections of the artery at the obliterated region show the disease to be chiefly in the intima, which is enormously thickened and converted into a low variety of connective tissue, having a translucent aspect and with only a few neuclei scattered through it. The media was also affected, annular calcification having taken place in bundles of the muscle fibres.

Dr. Osler also exhibited the uterus and ovaries of a woman, aged 23, who had died of pneumonia exactly fourteen days

after the beginning of the menses, which had been cut short by the illness. The woman had been a prostitute and the pelvic peritoneum presented, as is so common in this class of patients, signs of old inflammation, numerous bridles passing across in Douglas's fossa between the uterus and rectum; and the ovaries retracted almost to the uterus by shortening of the broad ligament. The Fallopian tubes were twisted and dilated, and the external tissue of the ovaries thickened and of a very opaque, white colour. The mucous membrane of the uterus was about 1½ lines in thickness, of a reddish colour, and, as the sections exhibited showed, tolerably normal. The Fallopian tubes were distended with material composed of blood corpuscles and desquamated epithelium. In the left ovary was a fresh corpus luteum ½" long, the lining wall yellow, not folded; the interior was filled with coagulated blood. Dr. Osler stated that he had brought forward the specimen to enable him to refer to a recent valuable paper by Dr. Leopold in the *Archiv für Gynæcologie*, on the structure of the uterine mucous membrane during menstruation, a subject which has been brought prominently before the profession in the past few years by Kundrat, Engelmann, Williams and others. In the present case no reliable deductions could be drawn as the woman had died of an acute disease, the onset of which had interrupted the menses. Leopold had examined the uterine mucous membrane on the 1st, 2nd, 3rd, 4th, 8th, 9th, 21st, 24th, 25th, and 26th days during and after menstruation in healthy women who had died of various accidents. Two or three days before the menses appear the membrane is swollen, having reached its greatest development, not presenting at this time any signs of fatty degeneration nor is it congested. The hæmorrhage proceeds from the capillaries of the superficial part of the mucosa, the epithelium of which and the upper part of the glands alone being thrown off in the process, and not, as Williams supposes, the entire membrane. He has not found marked fatty degeneration of the membrane a constant feature. One very remarkable case was referred to at length; that of a girl 23

years old who was killed on the 26th day after menstruation, *i. e.*, two days before the next period. The uterine mucous membrane was swollen, 4 to 5 m.m. in diameter, and neither congested nor fatty. In the right ovary a ruptured and collapsed Graafian follicle was found, into which extravasation had not yet taken place. Dr. Leopold inclines to the belief that the ovum is always discharged 2 to 3 days before the onset of the menses, and that impregnation is much more likely to occur at this time than at any other. Moreover, the uterine mucous membrane is in a suitable condition for the reception of the germ, being in its highest condition of development, whereas, during and after the menstrual discharge it is undergoing changes, the superficial portion being cast off. If the ovum happens to be fecundated, the menstrual flow, which would have supervened in a few days, is interrupted, or else appears in a modified form. The beautiful coloured plates accompanying the paper were then handed round.

Mr. Lyford detailed some abnormalities met with in a subject dissected during the winter.

1st. The left styloid process was three inches long, and articulated with the lesser cornu of the hyoid bone. The process was in two parts, the lower 2½ inches, and the upper half an inch, and they were joined together by a capsular ligament. This is rare, and is considered to be an ossification of the stylo hyoid ligament. This corresponds to the epihyoid bone of the lower animals.

2nd. The jugular process of the occipital bone on left side was prolonged downwards, and articulated with the transverse process of the atlas. This is the normal arrangement in graminivorous animals, and takes the place of the mastoid process. This is a very rare abnormality indeed.

Personal.

HERBERT L. REDDY, B.A., M.D., C.M., (McGill University, 1876,) L.R.C.S., Ed. L.S.A.L., passed the examination before the Royal College of Physicians, London, and obtained the license of the College 15th April, 1878.

CANADA

MEDICAL & SURGICAL JOURNAL

JUNE, 1878.

CASE OF SUPPOSED TUBERCULAR DISEASE OF THE BRAIN.—RIGHT HEMIPLEGIA WITH COMA, FOLLOWED BY APHASIA.

PARTIAL RECOVERY.—UNDER THE CARE OF

GEORGE ROSS, A.M., M.D.,

PROFESSOR OF CLINICAL MEDICINE, MCGILL UNIVERSITY.

(Read before the Medico-chirurgical Society, of Montreal, March 22, 1878.)

J. D., æt. 28, medium size, spare but not emaciated, came under observation on the 10th of October, 1876, complaining principally of very severe pain in the head and weakness.

His family history shows a markedly tubercular diathesis—his father, mother and five brothers and sisters having all died of phthisis—one sister only now surviving.

He has had typhus and typhoid fever, and also yellow fever. He had a chancre four years ago. Careful questioning fails to elicit any indication of his having suffered from constitutional syphilis at any subsequent period.

He had been an in-patient of the Hospital in August last, suffering from frontal pain, which was looked upon as neuralgic. He got better of this and went home, but the pain soon returned as severely if not more so than before, and became accompanied at times by attacks of giddiness, so much so that he was more than once obliged to sit down in the street to recover himself. Has had frequent sensations of flashes of light passing in front of his left eye. Occasionally has felt a jerking sensation, last-

ing a few moments, in the muscles of the right arm, leg and side of the face. Has also observed diplopia on several occasions within two months.

Four days ago he had a chill, since which time he has had a great deal of pain in the head, forehead, buzzing in the ears, loss of appetite, vomiting, and diarrhœa, accompanied by a great feeling of weakness. At present he lies very quiet in bed, all his movements being very slow. The abdomen is flat, and muscles rigid; tongue clean and moist. When he vomits there is very little nausea either preceding or following. Breathing slow and irregular. Pulse is 40 per minute; respirations 10. There is much intolerance of light, and he always lies with his head turned away from the window; when the gas is lit he moans and complains. Sounds of any kind also annoy him considerably. He complains continually of being drowsy, but does not sleep much. I had his eyes examined by Dr. Buller, who reported the presence of double optic neuritis, and a small spot of hæmorrhage in the left retina.

Heart and Lungs healthy. Urine normal in amount and appearance and free from either albumen or sugar.

Ordered sodæ hypophos. gr. v.; ol. morrhuæ ℥ss. three times daily.

During several days subsequent to this there are noted a continued dull, heavy suffering look; continued pain in head,—increased by light and sound; pulse became slightly faster, being 56 on the 18th, whilst the respirations were 12. At this time he began taking a draught of chloral and pot. bromide, to relieve the persistent sleeplessness.

By *Nov. 2nd*, he was somewhat better, not quite so dull and drowsy. Pulse, 100; respirations, 17. Slight dilatation of the left pupil was noticed.

16th.—Has had a superficial pain over left brow, of a darting character; it is found that there is decided tenderness over the three branches of the 5th nerve, most marked over the supra-orbital. This condition lasted only two weeks, and is noted as absent on the 1st of December. He was now up and about.

Dec 26th. — A sudden giddiness under which he fell; the

usual head pain has since been unusually severe, on the left side over the brow. Pulse 72.

Jan. 14*th*.—Headache more or less continuous—felt principally in the back of the head—occasional vomiting, and habitual constipation.

During the months of January and February, nothing particular was noticed. He remained in the hospital, never having been well enough to be discharged. He walked about a good deal, ate pretty well, but did not gain in flesh. Some days had but little pain in the head, but on others suffered very severely. About the beginning of March a gradual but peculiar change was noticed to bo coming over him. Seemed very quiet and very stupid. On being asked what he feels the matter, says he can't tell, but that he has a queer feeling all over him, at the same time his speech is somewhat thick, and he speaks in a hesitating manner. This condition persisted through the months of March and April, occasional headaches meantime having been very severe. It was only, however, towards the end of the latter month that *peculiarities* in his expressions were noticed, as though he did not make use of the proper words to convey the idea meant. Thus he told us one day that he passed a *nightmare* last night, and other odd expressions, but that was all; nothing like the miscalling of aphasia.

On *April* 28*th* pulse was 60.

May 1*st*.—Head pain was very severe; is very dull; pulse 50.

2*nd*.—Head pain very intense last night; had some morphia hypodermically; is very dull, cannot walk at all, but has no actual paralysis of any of his limbs. There is some loss of power in the muscles on the right side of the face, especially in the orbicularis palpebrarum.

For several days he had become increasingly dull and stupid without as yet any hemiplegia. On May 6th, could not be got to answer questions at all, and had incontinence of urine; was very restless at times, requiring to be watched and kept in bed.

8*th*.—Quite unconscious; will not open his eyes, or protrude his tongue; is continually rubbing his chin and yawning. Pulse 60, small and compressible; pupils equal, of medium size.

The paralysis of the right side of the face continues as before, but has not become at all more marked; it is thought that he does not move his right arm and leg as freely as those of the opposite side.

9th.—There is now very decided hemiplegia of the right side. both motion and sensation being completely lost. Has been very restless and delirious all night. Is quite unconscious and passes all his evacuations beneath him.

10th.—Apparently worse; quite unconscious; is constantly hiccoughing; takes no nourishment.

12th.—The report of this day says, "Patient sinking rapidly," and, indeed, we had every reason to think so. He remained almost perfectly unconscions, with a constant annoying hiccough. Pulse became quite rapid (120) with respirations 20. Temperature 100 3-5S.

14th.—Some improvement has taken place; he has to some extent regained consciousness and has made some endeavours to speak, although he has not succceded in saying anything intelligible.

16th.—Remarkable improvement; understands all questions put to him, and some of them he answers quite rationally. He recognizes the faces of the doctors and students, and points out those he knows, but cannot at all remember their names, although previously they were quite familiar to him. When shown objects he almost certainly miscalls them, although he will recognize the right word if told him, and will express pleasure thereat. At the same time his speech is very thick, stuttering and often difficult. The paralysis persists. He now takes plenty of nourishment, and is constantly asking for milk. Has no headache, in fact, no pain whatever.

17th.—Patient is quite cheerful to-day; understands all that is said to him, and is inclined to be jocose over it, making poor attempts at smiling owing to his drawn visage. But the expression of his face is remarkedly changed from what it was before the commencement of his illness; before, it was always dull, solemn, and giving the idea of one suffering constant pain. Now, it is free from all painful expression and ready to break into a full grin at the least approach to a joke.

He is markedly aphasic. The urine is high-coloured, specific gravity 1028, and contained a marked excess of urea.

28*th*.—Is now quite rational, and continues unusually cheerful; has no pain; still aphasic but not so much as on two days ago; speech a little thick. Has a good appetite, and sleeps well. Hemiplegia persists.

20*th*.—Very much better; speaks much more freely, and attempts to speak quite volubly. He is generally pulled up short in a sentence by finding the want of a *name*, all other words seeming to come to him much more readily. To-day he can move the right leg pretty well, but not the arm.

30*th*.—Steady improvement has continued. Has very considerable use in the leg, and power over the arm is also slowly returning. The aphasia has also been correspondingly disappearing, until now he can name almost any object without mistake, only occasionally using a wrong word. Articulation, however, is yet somewhat thick, and a little difficult.

From this time improvement was steady and continuous. He fed well, and slept well, and gained in flesh. Had no pain in the head or elsewhere, and was always contented and cheerful, inclined, perhaps, to be a little *silly*, but at the same time quite able to *argue* upon any point. A slight degree of hemiplegia remains, and his speech is still a little hesitating.

Remarks.—I have brought this case before the society on account of several very interesting clinical features presented by it. Of course the patient being still alive, as far as I know, no confirmation of the diagnosis has been possible, and it therefore cannot be considered certain.

First, as to the symptoms presented upon admission, and for some time after, there were intense pain in the head; marked intolerance of sound and light; a dull, lethargic condition; a slow pulse and frequent vomiting with constipated bowels. This had supervened after a history of cephalic neuralgia, and repeated attacks of severe vertigo lasting during several months. These marked cerebral symptoms pointed, I thought, either to cerebral tumour or abscess of the brain. With a view of getting the advantage of a knowledge of the condition of the fundus of

the eye, Dr. Buller was kind enough to examine him for me with the ophthalmoscope ; there was found to be double optic neuritis in a very decided degree.

As regarded the differential diagnosis between the two conditions—which of course is often very difficult—the points in favor of the former were the existence of an extremely marked tuberculous history, thus affording one possible inherited constitutional condition capable of causing them. And against the idea of abscess were the absence of any injury to the head, or caries of the ear-bones, or other possible cause. Another feature also favoring the supposition of tuberculous deposit was the fact that for some time past he had been steadily losing flesh without any specially obvious cause for so doing. Of *Syphilis* there was no suspicion after very careful enquiry. *Cancer* was excluded by his age and the absence of cancer anywhere else, so that a tolerably positive diagnosis of *Tubercular Tumour* of the Brain was entered. This diagnosis I still maintain, and would account for the relief of the symptoms subsequently obtained by supposing that the growth, instead of continuing to increase in size, has been undergoing some process of dessication or cretifaction. Of course there is no doubt that such tuberculous masses may so become innocuous elsewhere, and if so why not in the brain ? On the other hand, it may be objected that if there be a tumour it may be of the nature of glioma or fibroid tumour. This objection, it is impossible to meet. My reasons for thinking it *probably* tubercular I have already given.

Next, as regards the comatose or paralytic attack, which has been described, my impression at the time was that the disease had extended so as to involve either by pressure or by secondary softening, important parts connected with the motor tract or centre of speech in the left hemisphere of the brain ; but when improvement set in and continued steadily to advance, until, from a condition of complete aphasia, speech was almost entirely restored, then it seemed more reasonable to suppose that the results witnessed had been produced through derangement of the vascular supply by thrombosis, and as this defect was removed through the collateral circulation, the cerebral functions were once more regained.

I would note that this case adds one more to the many which have been reported to this society, of aphasia with *dextral* paralysis, and as yet not one of aphasia with *left* paralysis has been brought forward, showing what is universally admitted that the immense majority of cases of aphasia are produced by injuries upon the left side of the brain. I trust that if any member meets with an example of this rare variety he will favor this society with a report of the case.

ON TWO CASES OF PUERPERAL CEREBRAL EMBOLISM.

By Francis J. Shepherd, M.D., M.R.C.S., Eng.

I bring these cases before this society on account both of their great interest and rarity. I am sorry that circumstances have prevented me from procuring more complete notes, but still I feel it my duty to place on record two cases of such a rare and interesting affection, even if an exhaustive narrative cannot be supplied.

Case I.—In March, 1877, during the absence of the regular physician, I was called to attend a lady in her first confinement, whom I learned had suffered in childhood from severe chorea. During her pregnancy she had been attacked with chorea in a form so aggravated as at times to prevent her from walking. The labour was natural though tedious, lasting twelve hours. Slight hæmorrhage occurred after the removal of the placenta, however under suitable remedies the uterus soon contracted, and when I left, almost two hours after labour, she was going on very well. The next morning on visiting her I found that she was speechless and hemiplegic in her right side, and was informed that late the evening before (about six hours after labour) she had a faint and became speechless, and that soon afterwards she was found to be paralysed in her right side. When I saw her the only word she could say was 'Yes.' She was quite sensible and understood all that was said to her. She had no pain in the head. Pulse was 80, and temperature 99°. Examined heart, and found sounds normal. During the following week

she began to regain the use of her right leg, but her right arm was comparatively useless and she was still aphasic. Her own physician being now in attendance upon her I did not see her again for several weeks, and at that time she had quite regained the use of her right leg and was regaining the use of her right arm. Her speech was slow and indistinct, she paused often for a word, but never used a wrong one. She spoke like a little child learning to talk, and pronounced her v's and r's like w's. From this time I heard she gradually improved, and was after a time able to use her arm fairly well. I saw her last autumn in the country, seven months after her confinement, her speech was still slow and sometimes indistinct and thick. She said her right leg was as strong as ever, but that her right arm was still weak, and that she could not nurse her baby on that side.

CASE II.—Whilst in the country last July I was sent for to see a woman who had been confined some hours before by a resident female accoucheur, and was suffering they said from severe flooding. When I arrived I found that the flooding had ceased, the woman was pallid, restless, and almost pulseless, and the uterus was distended with blood-clots. I immediately introduced my hand into the uterus and removed the clots. The uterus contracted well, and no further hæmorrhage occurred. I ordered the patient to be kept warm and to have plenty of milk. The next afternoon when I left for town, the woman apparently was doing well. The week after I heard from her sister that she had had a fit and was not able to speak, and was paralysed in her right side. The week following this I again went to the country, and on visiting my patient found that she was rapidly regaining her speech, and that she was recovering the use of her right leg. Bed sores had begun to form in the right buttock, still she was apparently improving, pulse firmly strong and temperature normal. I examined her heart but could detect no murmur. There was no history of acute rheumatism. I might have mentioned before that this woman was about 36 years of age, and that this was her sixth confinement. She continued to improve for some days, but as I was informed, she was then seized with a second 'fit,' and died

comatose the following week. I was in town when she died, and did not hear of her death till some time after, and, of course, it was then too late to obtain a post mortem.

The history of the first case would naturally lead us to suppose that some disease of the heart existed, as it is well known that cardiac disease is a very common accompaniment of severe chorea. It is also a well-known fact that slight cardiac disease may exist and not be detected during life. Sir James Simpson* reports a case of puerperal cerebral embolism in the eighth month of pregnancy in which contraction of the mitral orifice was present; this was detected only after the most careful examination, and confirmed some years after when the woman died of a second attack. It is probable in my first case that vegetations existed on the valves of the heart, and that one of these had been loosened during the exertion of labour, was afterwards set free, and found its way to the brain, or clots might have formed on the diseased valve, and parts of these broken off and sent into the circulation. It is well-known that during pregnancy there is an excess of fibrin in the blood, and that the blood even where no diseased valve exists, has a tenecency to coagulate, so that where there is an affection of some of the valves of the heart during puerpural attack, it is not at all improbable that the tendency the blood has to coagulate is very much increased. The attack in this case came on very soon after labour. This is rather unusual, as in Dr. Barnes'† fifteen tabulated cases of embolism of the extremities after pregnancy the earliest came on the second day, and the latest seven weeks after labour. Formerly it was thought that a case of puerperal cerebral embolism was necessarily fatal, and Dr. James Simpson, in 1857, had never seen a case of recovery. Several cases of recovery are reported in the Medical Journals, and this I am happy to say will add another to the list.

In my second case the cause of the embolism is not so clear, and the termination was not so favourable. There was no history of rheumatism, and no heart disease. As I said before it is

* "Edinburgh Medical Journal," vol. viii. p. 1085.
† Obstetrical Society's Transactions, vol. iv.

well known the blood of women in the puerperal condition is more liable to coagulate than in ordinary cases. Dr. Austin* says, "It is undoubted that in certain cachectic conditions and in certain states of the circulation, spontaneous coagulation of the blood takes place in the very centre of the propulsion, and it can hardly be far-fetched to assume that similar coagulations under certain circumstances occur at the extremes of the arterial system. Now, this patient had lost a large quantity of blood, and certainly was in a cachectic condition, and probably the tendency of blood to coagulate was thus rendered greater a clot, probably formed in the heart, and a small portion broke off and was carried to the brain, or perhaps there was a coagulation formed in some of the vessels of the brain itself, either in the arteries or veins.

Dr. Nish† relates a case of plugging of the superior longitudinal sinus and cerebral veins in a girl who had right-sided hemiplegia with aphasia. This, of course, is a very rare case.

Dr. Tonge‡ says, coagulation may possibly be due to the presence of some morbid matter absorbed into the blood from the uterus, or that from some other cause the blood is in a state prone to coagulate."

Cases of puerperal cerebral embolism, judging from the scanty number reported are evidently rare. Embolism of the extremities and pulmonary artery is much more common, and Dr. Barnes§ gives two tables of embolism after pregnacy. The first comprising 15 cases of embolism of arteries and extremities. There were only two recoveries. Eight had early vegebalius in valves in post mortem. Five had a history of acute rheumatism, and in the others, the heart was perfectly healthy. His second table comprises fourteen cases of pulmonary embolism after pregnancy, with death in all, of course. At that time Dr. Barnes had heard of no cases of puerperal, cerebral embolism, though he says it is quite possible they may occur either in the form of a simple clot, or minute particles may penetrate the finest cere-

* Pathological Society's Transactions, vol. x.
† Transactions of the Pathological Society, vol. vi.
‡ Transactions of Pathological Society. vol. x, p. 117.
§ Transactions of Pathological Society, ol. xvi.

bral arteries or capillaries." In this way a clot formed in the right heart might break up, and minute particles carried through the capillaries of the lungs and eventually lodge in the capillaries of the brain, the capillaries of the brain, as is well known, being of very minute size.

If in these cases of embolism there is no heart disease, no history of chorea or rheumatism, and no disease of the blood vessels it is probable that the blood was clotted in the cavities of the heart, and minute particles of this clot were carried into the circulation and blocked up one of the arteries of the brain, so the middle cerebral cases of second attack after recovery are reported. Sir James Simpson* relates one in which the woman recovered from the first attack, bore two more children, and during her third pregnancy had a second attack and died. There was no clot forming in the branches of the middle cerebral, but the corpus striatum of left side contained a cavity. Sir James says that from the time that had elapsed between the hemiphlegia and the heaviest attack, possibly the clot had been absorbed. These attacks of embolism may occur during pregnancy or after labour. The earliest cases was the 7th month† of pregnancy, and the latest seven weeks‡ after labour.

RETENTION OF THE PLACENTA.—Mr. DAVIES reports in the *British Medical Journal* that about sixteen years ago, Mrs. G. arrived in London, and was seized with pains and threatened premature birth in six months. I ordered perfect rest, etc., and matters went on comfortably for a few days, when the fœtus was expelled. The funis was torn off short at the os, which was rigidly contracted; and I determined not to interfere. During the whole time of retention, I was kept in constant anxiety, as periodical flooding came on; and on one occasion, I took the late Dr. Cape of Curzon Street, Mayfair, with me in consultation. After examination we agreed nothing could be done, but wait patiently. On the nineteenth day the placenta was expelled in a perfectly healthy condition without a sign of putrefaction.

* "Edinburgh Medical Journal," vol. vii.
† Loc. Cit. p. 1085.
‡ Obstetrical Society's Transactions, vol. iv.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Encephaloid Cancer of the Axillary Glands, with secondary deposits in all the internal organs.—Under the care of Dr. FENWICK. Reported by JAMES BELL, M.D., Assistant House Surgeon, Montreal General Hospital.

P. B., æt. 43, a large, well-built muscular countryman, of French-Canadian descent, was brought to the Hospital on the 11th of April, 1878. He was in great pain, and stated that he had some sort of a tumour in his right axilla. He was admitted to Dr. Fenwicks's wards, but being very ill and suffering a great deal of pain, his history was obtained with difficulty, and is therefore incomplete. None of his family had ever suffered from cancerous disease. He had been a hard drinker, and during the greater part of his life had been engaged in laborious occupations. He was for four years employed in copper mines, and exposed to great hardships. He was then an axe-grinder for five years, in which employment his right arm was constantly wet. During the last eighteen months has been an hotel-keeper. Ten years ago he had a severe attack of acute rheumatism. Three years ago he first noticed severe, shooting pains in the right arm and elbow, and partial paralysis of the arm, but no swelling in any part. About ten months later he regained the use of his arm. He had then no pain nor trouble of any kind in the arm until Oct. 1877, when he was again seized with pain and partial paralysis of the same nature as the previous attack. There was now also pain on pressure along the spines of the lower cervical vertebræ, about the acromion process, and along the axillary border of the scapula, and also in the right infra-clavicular region. The pain was not increased by movement of the arm, and there was no swelling nor visible tumour. It was thought to be a rheumatic affection, and he was treated with iodide of potash, colchicum, and hypodermic injections of morphia to relieve the pain. In the beginning of February, 1878, he noticed a small swelling in the infra-clavicular

region, which he thought was caused by the puncture of the hypodermic needle. It was very tender and increased rapidly in size extending outwards towards the axilla, and upwards over the shoulder. The arm at this time began to swell, and soon became double its natural size. He weighed at this time 207 lbs. All these symptoms increased rapidly. He lost appetite and became thin and weak. He was obliged to take to his bed and to take increasingly larger quantities of morphia to relieve the pain. When admitted on the 11th of April, he weighed about 160 or 170 lbs, (having lost about 30 lbs. within three months), had a sallow and cachectic appearance and was very weak. A large, firm, lobulated tumour was felt in the right infra-clavicular region, extending from the costal cartilages into the axilla, and up on to the shoulder. The right arm and hand were double the size of the left, and had a tense, brawny feel. The liver was much enlarged, and very tender extending three inches below the ensiform cartilage in the median line, and from the upper margin of the sixth rib to the level of the umbilicus in the nipple line. No systematic examination of the heart and lungs was made on account of his great prostration, and as there were no special symptoms referable to them. There was œdema of the whole right side from the shoulder to the crest of the ilium. His left upper eye-lid was paralysed, and his left pupil dilated. Dr. Buller examined his eyes, and found that all the ocular muscles of the left eye were paralysed, but that the optic nerve and retina were perfectly healthy. He stated as his opinion that the interference with the functions of the 3rd, 4th, and 6th nerves, was probably due to pressure on those nerves just before their entrance to the orbit by the sphenoidal fissure. A consultation was called on the 13th, and Dr. Fenwick's diagnosis (malignant disease) was confirmed, as also his opinion that no operation could afford any relief, and that the disease must very soon terminate fatally. He become gradually and rapidly weaker, and died on the evening of the 15th. His intellect remained clear throughout, and no new symptoms were developed.

The autopsy was made by Dr. Osler, eighteen hours after

death, and the following notes have been transcribed from the post-mortem book.

Body.—Medium sized, well-formed and well nourished. Right arm and hand much swollen and œdamatous, pale in colour, and double the size of the limb on the left side. In the right axillary region, and involving the shoulder is a large tumour surrounding the tissues in the neighbourhood of the head of the humerus. The largest mass fills up the axilla, being moulded upon the chest and convex externally. Above it reaches the clavicle, below the level of the seventh rib. Anteriorly it projects below the clavicle as a flattened tumour, extending to within 2½ inches of the sternum. Lower down it reaches the mammary line almost touching the nipple. Posteriorly it fills up the subscapular fossa, infiltrating and destroying the muscle in this region. The axillary vessels pass directly through the central part of the mass. A probe can be passed through the artery but its lumen is much narrowed. The vein pursues a sinuous course, and in places is almost obliterated by the projection into its lumen of nodular masses. It is not ulcerated at any spot. The cords of the brachial plexus are also compressed, but not infiltrated. The deltoid muscle where it passes over the head of the humerus is much thinned, while in its lower part it is infiltrated and in part destroyed. Immediately beneath the acromion process, and to the outer and back part of the head of humerus, is a large rounded projection which elevates and involves the terminal portions of the infra-spinatus and teres minor muscles. The coracoid process, and the tissues immediately in front of it form a large projecting mass which involves the fibres of the pectoralis minor. The scapula in the neighbourhood of the glenoid cavity is eroded, the articular surface being loose and almost separated from the body of the bone. The coracoid process and upper border of the bone are involved, the new growth passing through the bone and infiltrating the supra-spinatus muscle. The articular surface itself is not affected. The articular surface of the humerus is surrounded by cancerous tissue, presenting a peculiarly dry leathery appearance. It is non-vascular and not unlike the old fibrous laminæ of an aneurism. The ligaments are all

involved and the bone slightly eroded at the margin of the articular surface which is itself intact. On sections the large mass beneath the pectoral muscles, and in the axilla it is seen to be made up of a tolerably firm, and highly vascular structure. In the parts in the axilla an indistinct lobular arrangement can be seen. The surface of the section is greyish-white, and interspersed with blood-red areas of either congestion or extravasation. In the deeper parts it is drier and not so vascular. On opening the abdomen the liver is seen to project four inches below the costal border, and appears enlarged.

The *omentum* is small, and presents several small firm, reddish nodules. On inspecting the intestines and mesentery, a firm mass the size of an orange is seen to occupy the latter organ. Scattered over the mesentery, chiefly at its intestinal margin, are small nodular masses ranging in size from a pea to a marble. The peritoneal cavity contains 4 oz. of turbid, reddish fluid, but no lymph nor any signs of inflammation. The attachment of the diaphragm corresponds on the left side with the fourth rib-on the right side with the third.

On opening the thorax one or two small firm nodules are found in the anterior mediastinum. *The pericardial* sac contains 2½ oz. of bloody serum. The right auricle of the heart contains a thick and gelatinous clot, which is continuous through the auriculo-ventricular opening to the ventricle, and so up the pulmonary artery, where it is colourless. The left auricle also contains a partially decolourized clot. Nothing abnormal in the orifices or valves of the organ. In the anterior wall of the left ventricle, towards its left border, is a cancerous nodule the size of a cherry, involving the muscular substance. Scattered throughout both lungs are numerous firm nodules, ranging in size from small marbles to a pigeon's egg. At the root of the left lung is a very large nodule, which appears continuous with the cancerous bronchial glands in the neighborhood. These bodies are very large, especially those just below the bifurcation. The pleural surfaces are covered over with innumerable small, opaque, fibroid masses, elevated chiefly upon pyramidal areas, and at the junction of the septa they are firm and nodular.

The lung substance presents scattered areas of dark, brownish-red pigmentation. The lungs are but slightly crepitant.

The spleen weighs 320 grms. It is large and of normal shape. Four large masses, white in colour, project from the convex surface and anterior border. The smallest one of them is cupped. On section these masses present sharp outlines, are of a reddish white colour, and here and there hæmorrhagic. Spleen pulp very soft.

Kidneys.—The right weighs 250, the left 270 grammes Numerous nodules are apparent on the surface of both, varying in size from a pea to a marble. Some of these nodules are opaque-white, others dark red, or even black. Both organs are lobulated. The capsules detach easily except when the nodules are situated. On section the substance is interspersed with masses of cancer, chiefly in the cortices. In other parts the substance looks normal.

Urethra and Bladder normal.

Supra-renal bodies enlarged, each weighing about 50 grms.

Pancreas presents several secondary masses the size of marbles.

The Liver weighs 3970 grms. being uniformly enlarged. The surface is smooth, or presenting trifling inequalities in the form of roughened projections. No nodular masses are apparent. On section there is seen to be diffuse cancerous infiltration of extensive areas, not sharply defined, but blending insensibly with normal looking tissue. Indeed in places in the cancerous areas the outlines of liver lobules can be distinctly seen. Hardly a portion of the liver substance the size of a half-dollar, but does not show signs of the affection. The Gall-bladder contains a small amount of bile. The ductus communis choledochus is patent. No enlargement of glands in this neighborhood.

Stomach contains a quantity of milky fluid, and in the mucous membrane near the fundus is an elevated mass beginning to ulcerate on the surface. On section it is white in colour, and appears to be cancerous.

Intestines—From 15 to 20 small ulcers are seen throughout

the jejunum and ilium, 8 or ten being in the upper part of the jejunum. They range in size from a three-penny bit to a six-pence, or a little larger. The edges are much elevated, their bases cupped and covered with greyish-yellow material, beneath which is a firm, translucent matrix, involving the coats of the bowels to the depth of a line and a half. In the cæcum are a dozen or more ulcers presenting the same characters.

Brain.—Nothing abnormal in the membranes, and a careful dissection reveals nothing abnormal in the brain substance itself. The sella turcica is occupied by the pituitary body, which appears large and soft and extends as a firm mass into the left cavernous sinus, surrounding all the textures in that situation.

On examination this is found to be cancerous infiltration involving the pituitary body and the tissues in the cavernous sinus of the left side, converting them into a firm, immovable mass. The third nerve runs along the top of the mass, and can be dissected from it without much trouble, but is compressed by it. The fourth nerve is imbedded in the upper part of the mass. The fifth nerve passes to the outside and does not appear to be involved. The sixth is on the under surface, and in part of its extent is surrounded by the cancerous growth. The artery does not appear to be at all compressed.

A Case of Dislocation of the Femur on to the Dorsum of the Ilium.—Under the care of Dr. REDDY. Reported by JAMES BELL, M.D., Assistant House Surgeon Montreal General Hospital.

J. E., a large and powerfully-built Englishman, was admitted to the Montreal General Hospital on the 14th of April, 1878, with a recent dislocation of his hip-joint. He was an unmarried man, a laborer, 52 years of age, but looking much younger. On subsequent investigation we discovered no family history of constitutional disease. He had always been healthy with the exception of a mild attack of typhoid fever some years ago. He had always beon engaged in hard work, and had been a pretty hard drinker. All his organs were healthy. He was

carried in on a stretcher about four o'clock in the afternoon, suffering very great pain, and gave the following account of the accident. About six hours prior to being brought to the Hospital he was wrestling with another man, and was brought to his knees, when he put his head between his antagonist's legs, and attempted to rise with him on his shoulders. He felt himself falling towards the left side, and on endeavoring to regain his equilibrium he fell and heard something give way in his hip, and he fell over on that side. He found that he could not straighten out his leg, and the pain was very intense. When undressed and put to bed there was no difficulty in diagnosing dislocation of the femur on to the dorsum of the ilium. There was immobility of the joint, the thigh was half flexed on the abdomen, the knee rested on the opposite thigh, about two or three inches above the knee, the whole joint was inverted and shortened by about two inches, and the ball of the great toe rested on the instep of the opposite foot. On drawing *Bryant's triangle*, the base line was found to be an inch and a quarter shorter on that side, and finally the head of the bone was readily felt on the dorsum of the ilium. Dr. Reddy, into whose ward the patient was admitted, was at once sent for, and on his arrival the patient was carried to the operating-room and put thoroughly under the influence of chloroform. Dr. Reddy then proceeded to reduce it by rotation, and succeeded in doing so on the first attempt. The legs were then bound together and he was carried to his bed, and an ice bag applied to the joint. He suffered very little pain after the reduction of the dislocation, but for several days there was a good deal of effusion into the joint. The ice-bag was kept constantly applied for about a week, and then the hip was painted with the tincture of iodine. After remaining two weeks in bed he was allowed to get up and move about, and was finally discharged on the 4th of May, quite well, with the exception of a little stiffness in the joint.

Reviews and Notices of Books.

A Compend of Diagnosis in Pathological Anatomy, with Directions for making Post-mortem Examinations.—By DR. JOHANNES ORTH. Translated by T. C. SHATTUCK, M.D., and G. K. SABINE. M.D., revised by REGINALD H. FITZ, M.D., with numerous additions from M.S., prepared by the author. 8 vo. n. xxxi. & pp. 440. New York: HURD & HOUGHTON, 1878.

With the exception of a short translation of a manual by Virchow, quite recently published on "Post-mortem Examinations, with especial reference to the Medico-legal practice," no work in the English language has appeared as a guide to the student in the post-mortem room. This, probably, is due to the fact that no special systematic work can be accomplished. The student is forced to take advantage of what comes before him. There is a great difference between the method of study in the dissecting and in the post-mortem rooms, and in the latter the student is left very much to make out for himself what he sees as a result from diseased action, and to interpret its meaning. In saying this we do not wish to infer that pathological anatomy has been neglected, and that no works exist on that subject, nevertheless, we are forced to admit that very few such books as the one before us has appeared in the English language, and that the student is left to make out the conditions observed, without the aid of a guide-book. The work done in the post-mortem room, is desultory and inconstant, no regular order can be followed, so that to be of benefit the student has himself to place the knowlege there gained in some order of arrangement in his subsequent reading.

In the preface to this work the author very correctly observes that "absolutely practical knowledge can only be fully obtained from actual experience in performing autopsies;" and he also remarks that "in order to make this experience the more profitable, it is necessary that a theoretical knowledge should first

be acquired, not only of the course and method, of the examination, but also of the alterations which may take place in the several parts, and their characteristic peculiarities."

In making a post-mortem examination of a body the student may simply desire to confirm a diagnosis, or to ascertain the condition of one or other of the organs or parts involved in disease, for this purpose the organs may be removed from the body and so examined. If, on the other hand, he desires to obtain a clear insight into what has been brought about by disease in the different organs, of latent morbid changes, a thorough and methodical examination is essential. If the actual cause of death is sought for, each and every organ individually and in its association with other organs must be examined, otherwise some important point may be overlooked. Again, in medico-legal investigations, the examiner should not confine his researches to those changes immediately connected with the legal questions at issue, otherwise he will be himself deceived, and from the imperfect investigation, he will not be in a position to give a decided and weighty opinion.

After a few general introductory remarks chiefly alluding to the preparation of the body for examination, the instruments and chemical reagents, necessary, the author passes on to the inspection of the body, and he shows how necessary it is to take note of all circumstances observable, as well as the time when death occurred, and the manner of it; the general attributes of the body, age, sex, stature; whether well nourished or emaciated; signs of death and decomposition; all marks or injuries, whether bruises, wounds, discolorations, and the amount of cadaveric rigidity. These circumstances should first be noticed, and a record made of them before the internal examination is proceeded with. Specific directions are then given how to proceed, and what to examine, as well as what may possibly be found in all the organs and tissues of the body. This is a most valuable and useful work, and should be in the hands of every practitioner, because at any time he may be called upon to inspect a body where death has come under suspicious circumstances. We recommend it to all our readers.

The Source of Muscular Power, Arguments and Conclusions, &c. By AUSTIN FLINT, JR., M.D., Professor of Physiology, &c., Bellevue Hospital Medical College. 12 mo., pp. 103. New York: D. APPLETON & COMPANY, 549 & 551, Broadway, 1878. Montreal: DAWSON BROS., St. James Street.

This little book is a reprint from an article which, was first published in the October (1877) number of the *Journal of Anatomy and Physiology*. By some ill-luck, the author did not receive the proof sheets before publication, and he remarks in his preface that, as the paper originally appeared "the typographical errors, both in the figures and in the text, were quite important," hence, he was in a measure obliged to issue this book from the press so as to present an accurate statement of his own observations, and what seemed to him to be "the logical conclusions to be drawn from these as well as from experiments made by others upon the human subject under the conditions of rest and of muscular exercise. From the publication of the experiments of Fisk and Wislicenus in 1866, and of others of more recent date, a theory had been propounded that the muscular system of man and other animals is simply a perfected mechanical aparatus, which performs work not at the expense of its own substance, the material consumed, being restored by the assimilation of food, but by the consumption of food itself, and that the force value of the food so ingested, can be calculated much in the same way as can be estimated the value of the fuel consumed by a steam engine.

This certainly would be an important addition to positive knowledge if the theory could be substantiated, but it appears, although plausible, to be contrary to known facts. Take for instance any muscle or group of muscles, and exercise them continuously, the work will not only be done, force will not only be evolved, but the muscle itself will increase in size and development, and an increased number of muscular bundles will be produced. No amount of fuel to the steam-engine will add to its store of iron, or increase its power of resistance, so that the two processes although of the same genus are separate and

distinct. This little work is highly interesting and instructive, as it contains a series of tables made by the author and Dr. Pavy of London, as a result of experiments carried out by those gentlemen upon Weston, during his pedestrian feats both on this continent and in England. It contains much information on physical training which will be sought after by the reading public. It is to be had of Dawson Brothers, St. James Street.

Hand-book of the Practice of Medicine.—By M. CHARTERIS, M.D., Professor of the Practice of Medicine, Anderson's College, Glasgow, with illustrations. 8 vo. pp. 336. Philadelphia: LINDSAY & BLAKISTON, 1878. DAWSON BROS., St. James Street, Montreal.

This little work is published by the author for the purpose of recording the experience which he has gained as a physician and lecturer on clinical medicine at the Glasgow Royal Infirmary. The arrangement of the subject is similar in many respects to the generality of works on Practice of Medicine. He commences by a few general observations on disease and with bed-side hints. These are accompanied by three outline wood cuts indicating the various regions, both on the anterior and posterior surfaces of the trunk, and in a familiar way the author recommends the student to accustom himself to the different sounds elicited by percussion and auscultation in healthy individuals, so that he may more readily distinguish any departure from a healthy standard. He then passes on to the discussion of diseases proper, commencing with fevers, after which he takes up severally diseases of the respiratory organs; the organs of circulation; diseases of the abdominal viscera; of the nervous system, diseases of the spinal cord, diseases of the skin, and lastly parasites. The appendix is devoted to a series of prescriptions, which, we suppose, the author is in the habit of ordering. There are under the several headings of alteratives, resolvents, antacids, antispasmodics, diaphoretics, diuretics, emetics, expectorants, gargles and inhalations, lotions, liniments, salines, sedatives, stimulants, tonics, &c. These are all good in their way, and will be found of use. It is, what it proposes to be, a short, concise hand-book, and very good of its kind.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Ovariotomy in a child of twelve years.

Dr. T. Barlow read notes of this case, which had been under the care of himself and Mr. Howard Marsh at the Children's Hospital, Great Ormond-street. The enlargement was on the right side of the child's abdomen, and consisted on the extreme right of a hard mass, internal to which, and attached to it, was a tight cyst. The whole tumour was slightly movable and painless, and had been eighteen months growing. The child had scarcely any symptoms; she suffered only from a little constipation. Her temperature was normal. Chloroform having been given, a hypodermic syringe was introduced into the cyst two inches below the umbilicus, and one drachm of clear straw-coloured fluid was withdrawn. Next day the temperature had risen to 94·4°. Four days subsequently the tumour was considerably collapsed, the abdominal surface was flattened, and the hard part of the tumour was now quite definite. It evidently contained some material as hard as bone. The cyst had become quite soft and flabby, and gave no evidence of fluid. After about six days the cyst refilled. Fifteen days subsequently it was completely aspirated, and six pints of fluid were removed. The cyst, however, again filled. Ovariotomy was then performed by Mr. Marsh. There were no adhesions between the tumour and its surrounding parts. When it had been thoroughly exposed by the incision into the abdomen, it was tapped, and eighty ounces of light brownish-green fluid were drawn off. The remaining solid portion of tumour was still too large to be drawn through the opening, which was three inches long; it was consequently extended nearly to the pubes. The thick and fleshy pedicle was clamped by Mr. Spencer Wells's method and divided. Bleeding points in the omentum were secured by catgut; and the wound was closed with sutures. No subsequent bad symptom occurred. Pain in the abdomen was treated with morphia suppositories. After the eighth day several sutures were removed; the bowels acted spontaneously on the twelfth

day; and the clamp dropped off the pedicle on the thirteenth day. For some weeks the stump of the pedicle remained protruded and covered with florid granulations. It at length became completely retracted, and the child was discharged well about eleven weeks after the operation. The tumour weighed two pounds eleven ounces; it measured six inches across, and seven inches from above down, and was nearly spherical in shape. The lower half was composed of a thin-walled cyst, capable of holding a large cocoa-nut; it had projected into its cavity several smaller cysts. The hard part contained a plate of bone measuring two inches by four inches, and other smaller pieces of bone. There were cysts at the upper and outer part of the growth, with gelatinous and solid contents, many of which contained sebaceous matter, with collections of dark short hairs. There were also fibroid bands and irregular spiculæ of bone interposed between some of the cysts—*Medical Times and Gazette.*

Strangulated Femoral Hernia.—(Operation for Strangulated Femoral Hernia, in which an Anomalous Obturator Artery was divided.)—Mr. BARKER read notes of this case. The patient, a woman of fifty-six, was operated on in the usual way on February 7. Most of the constricting fibres were easily divided; but on severing some which remained, embracing the neck closely, blood welled out of the wound. The latter was enlarged and the vessel sought. As it could not be found and the bleeding soon ceased to be severe, it was deemed advisable to apply pads over the wound and compress with bandages. On the 8th the patient was better, and on the 9th better still. Early on the morning of the 10th, however, she took a turn for the worse (indicating peritonitis), and died at 5 p.m., on the same day. A post-mortem examination revealed acute peritonitis with serous effusion. Near the wound, about three or four inches of blood were found effused underneath the peritoneum in the pelvis, above and at the right side of the bladder. This blood came from an anomalous obturator artery passing down on the inside of the neck of the sac. It sprang from the epigastric, about half an inch from its origin, and was

completely severed at about three-fifths of an inch from its commencement. Its vein lay to the outside of the sac. The proximal end was plugged; the distal had furnished the bleeding. Mr. Barker remarked that his object in bringing the case before the Society was not only that it was a rare one, but that he hoped to elicit an expression of opinion from the members as to the best mode of dealing with cases where this rare accident had occurred. Was the artery to be sought at all costs, and ligatured: or was it, in certain cases, as in this, to be left to itself, controlled by pads? He had with a good deal of trouble and search through English and foreign literature, succeeded in collecting only twelve cases where this accident had occurred, excluding doubtful cases where no correct record had been given. Out of these, he said, it was remarkable that in six the vessels was secured with ligature or hook, and in six it was left to itself. Of the first six, two died; and of the second six, one (the present case) died of peritonitis. Without desiring to make too much of these facts, he thought that the one line of practice was at all events justified as well as the other, although in some books very positive statements were made as to the urgent necessity of seeking the artery and placing a ligature upon it.—*Medical Times and Gazette.*

The connection between Pruritus Vulvæ and Diabetes.—Dr. Wiltshire calls attention to the frequency with which pruritus vulvæ is associated with diabetes, and points out the desirability of a systematic examination for sugar in suspicious cases. He remarks that apart from the itching there may be no symptom whatever of diabetes —polyuria, loss of flesh, nor large appetite; and it is not, therefore a matter of surprise that the underlying diabetic affection frequently remains unsuspected. He records a case of a stout, florid, middle-aged woman, who came under his care tormented with violent itching of the vulvæ. Suspecting diabetes he had the urine examined, and then and ever since, it has contained sugar. The treatment which proved perfectly successful, consisted merely in the application of a borax lotion.—(*Lancet*, April 13, 1878.)—*Practitioner*, May, 1878.

Treatment of Epulis by Electrolysis.—At a late meeting of the Clinical Society Mr. Nunn, read some notes of cases of epulis treated by electrolysis. He remarked that this mode of treatment was peculiarly applicable to such cases, as the present difficulties to ordinary operative proceedings, and the hæmorrhage that follows is often considerable. The first case was that of a lady, in whom a sensitive and vascular growth, the size of half a walnut, prevented the adaptation of artificial teeth. The patient declining any operation by the knife, the electrolytic treatment was carried out. There were about twenty sittings; six or three cells were used. The tendency to bleed diminished with the progress of the treatment. The pain caused by the current was in proportion to the number of cells employed; it was unbearable when bone or peritoneum were touched by the needles, and it ceased immediately on their withdrawal. An injection of chloride of zinc produced intense pain and subsequent irritation. The patient was enabled to wear artificial teeth after the treatment. Mr. Nunn reported three other cases. He advocates electrolysis in these cases mainly on the grounds of its painlessness, ready applicability, and freedom from hæmorrhage. The cells employed contained manganous oxide and iron, chloride of ammonium being the exciting fluid. The electrodes should be of gilded steel, or of platinum.—(*Lancet*, April 20, 1878)—*Practitioner.*

New Mode of Treating Varicocele.—Mr. S. [Messenger Bradley states that he finds the following simple procedure an efficient method of treating varicocele. Pass a long and strong hare-lip pin between the veins and scrotal walls, bringing the point of the pin close beneath, but not through the scrotum; then make the point retrace its course, but passing now behind the veins until it emerges near the puncture through which it entered. In a word, by applying that form of acupressure, known in the Aberdeen School as the method of retroclusion.—*British Medical Journal.* March 16th, 1878.—*Practitioner.*

Morphia in cases of Aneurism.—(Morphia and a tell-tale as aids to compression in aneurism. By C. F. MAUNDER, F.R.C.S., Surgeon to the London Hospital,)—In my Lettsomian Lectures of 1875, I drew attention to the value of Morphia as an aid to compression, as a substitute for chloroform and its attendant risks. I illustrated its use in the case of a gentleman who "dozed, took his meals, smoked his pipe, and submitted to continuous digital compression for twenty-three hours, with scarcely a complaint; and at the expiration of this time, expressed himself as capable of enduring treatment many hours longer." The following is another example of the value of the drug.

In February 1877, Mr.——, who is now forty-two years of age, was advised that he was the subject of an aneurism of the popliteal artery. He was put to bed and treated for the first ten days with a bag of shot weighing eight pounds placed over the common femoral artery. During the next month a tourniquet was substituted, and worn during eighteen hours out of the twenty-four over the superficial femoral artery. His health now began to fail; treatment was discontinued; and he went to his business, the tumour being smaller, and pulsation less marked. During the last three months, the swelling and the pulsation had both increased, associated with pain and general discomfort about the knee.

March 29th. 1878, I found Mr. —— with an aneurism of the size of a large orange occupying the upper half of the popliteal region, and bulging somewhat to the inner side of it. Continuous digital compression with a weight of ten pounds was advised, aided by morphia, if necessary.

March 30th. Mr. W. R. T. Hawkins and Mr. Albert E. Jones of the London Hospital commenced the compression treatment at 11.45, A.M., the common femoral being the artery selected; and they maintained complete occlusion of this vessel for the space of half an hour alternately. At 4 P.M., the patient suddenly complained of severe pain (distal occlusion ?), commencing in the calf of the leg, and running up along the aneurism and femoral artery. A quarter of a grain of morphia was now hypo-

dermically injected, and relief afforded. From this time, when the gentleman compressing was relieved by his colleague, and the pressure for the moment somewhat relaxed, the force of the pulsation in the aneurism was observed to be gradually diminishing. At 8 P.M., an assistant was recruited, in order to help in the continuation of the compression through the night.

March 31st. At 2 P.M., another paroxysm of pain occcurred, after which pulsation was scarcely, if at all, perceptible; and a firm swelling occupied the seat of the aneurism, the disease being practically cured. At 10. A.M., no pulsation could either be felt or seen. One of the arteries could be detected meandering the knee. Compression was the whole time (thirty hours), the patient lay on his back, with the thigh rotated outwards, and the leg flexed at a right angle on this. An indicator which consisted of a penholder with a piece of paper like a flag placed between the nibs, and which marked the presence or absence of pulsation in the aneurism) was lodged like a finger post in the flexure of the knee, and acted like a tell-tale to the compressor. M.—— took food at intervals, and was cheerful and chatty, except when asleep. An injection of morphia was resorted to four times. The skin over the seat of compression which had been protected by the occasional application of French chalk, was slightly reddened only, and was the source of the least possible discomfort to the patient, who said he could have borne the treatment many hours longer.—*British Medical Journal.*

Remedy against respiratory Obstruction.—(An anatomical remedy against respiratory obstruction from the tongue, epiglottis and vellum palati in threatened apnœ from anæsthetics or other causes.)—Dr. BENJAMIN HOWARD remarked that the object of the paper was to give the results of various and repeated investigations and experiments. The facts to be presented confirmed the alleged respiratory obstruction from the tongue, epiglottis, and velum palati in apparent death in the ordinary supine position, and showed how much obstruction was promoted by the customary elevation and flexion of the head and neck. Traction upon the tongue, how-

ever firm, might open the pharynx, which its retreat had closed, but nothing more; the epiglottis remained unlifted. Other facts were then presented, proving how, by simple position, all these obstructions were instantly removed. The position consisted in the elevation of the thorax and complete extension backwards of the head and neck. By this means, the line of gravitation of the tongue was shifted from the back of the pharynx to the hard palate at or about its junction with the soft palate. The entire posterior wall of the pharynx was shifted backward; its anterior wall was shifted forward; thus, its antero-posterior diameter, as much as possible, was throughout increased; while, by the shifting upward of the nares their entrance was brought more directly over and in a line with the course of the pharnyx. The larynx being pulled downward and upward and backward of the lower jaws upon the stretch the genio-hyoid'i, mylo-hyoidei, anterior bellies of the diagastric muscles, causing the hyoid bone, and by means of the hyo-epiglottic ligament, the epiglottis, to share together the motion of the jaw. Thus the epiglottis was instantly made vertical. The thyroid insertion of the palato-pharyngei muscles being brought downward and forward by the sterno-thyroidei and fixed, The palato-pharyngei muscles were put upon the stretch, their whole length by their extensive movement upward and backward of the head; and thus the posterior pillar of the fauces, the arches of the palate, and the velum palati, into which latter membrane these muscles were inserted, were all pulled downward and forward; they were thus made tense and kept so. The velum being thus stretched some distance in front of the back of the pharynx, a post-oral airway was secured, from which the tongue was doubly excluded. Hitherto in the treatment of apnœa and asphyxia, the tongue had been withdrawn, only in those exceptional cases where a surgeon with forceps had been present. The means of complete elevation of the epiglottis in cases of apnœa had been hitherto unknown. The position described removed both those obstructions without assistant or instrument. The author from the facts given and from other experiences, urged that always in the induction and condition of

anæsthesia the head should rest rather lower than the shoulders. He also stated that complete extension backward of the head and neck should be the first and instant measure in threatened or actual apnœa, both as a remedy and as the first step towards success by artificial respiration. The withdrawal of the tongue when practicable, the author considered highly advantageous, though not necessary; but it should incur as little lowering of the inferior maxilla as convenient. Finally, the author claimed to have demonstrated that, contrary to the general belief, traction upon the tongue, however firm, cannot materially elevate the epiglottis; that he had discovered a simple way by which (1) the tongue is excluded from the pharynx without manipulation; (2) the epiglottis is elevated vertically at will; (3) an inobstructed post-oral airway is secured from the glottis to the nares—all of which is effected simultaneously by position alone. These facts had received corroboration from recent observations upon anæsthetized patients; and the author was glad to believe that, in averting apnœa, in restoring from apnœa, and enabling various means of artificial respiration to be used more effectively, the simple position above directed will be a frequent means of saving human life.—*British Med. Journal.*

Subcutaneous Injection of Chloroform in Neuralgia. — E. Besnier gives the results of his experiments on the effects of the hypodermic injection of chloroform. In one case of sciatica where many other means had been used without success, and where the injections of morphia had been requested to be discontinued by the patient himself on account of the distressing after effects, the injection of from ten to fifteen drops of chloroform gave immediate relief to the pain, which lasted for several hours. In other cases he has injected as much as twenty drops with equal success. He observes, however, that the injection requires to be practiced with some care, and the fluid should only be allowed to penetrate the subcutaneous connective tissue in order that painful effects may be avoided.—*Bulletin Général de Thérapeutique*, B. xciii., 1777. No. 10.)—*Practitioner.*

Topical use of Iodoform for Otitis Media Catarrhalis.—Dr. M. J. De Rossett, of Wilmington N.C., calls attention to the topical use of iodoform in catarrhal inflammation of the tympanum and Eustachian tube, particularly where there is perforation or loss of the tympanic membrane. In many instances its effect has been little short of marvellous, and in all well-marked. Even a case of nineteen years standing was speedily cured as to the discharges, and greatly benefited as to audition. The ears are cleansed in the usual way with a stream of tepid water, and dried with pledgets of cotton. Iodoform is then introduced by a Ranchfuss tube or by means of a cotton mop on a staff in sufficient quantities to cover thickly the entire tympanum. Repeat this two or three times a week, always cleansing in advance. The *modus operandi* is obvious. Iodoform is a disinfectant; a dessicant which prevents the diapedesis of white corpuscles, and promotes the activity of the absorbent vessels.—(*Maryland Medical Journal*, September, 1877.)—*Practitioner.*

A Unique Case.—Dr. Donald Maclean, Professor of Surgery in the University of Michigan, reports the following unusual case in the *Michigan Medical News* for April 25th, 1878. The patient was a child of three years who was suffering from a painful swelling of the right upper jaw, supposed to be abscess of the antrum.

On examination I found the face much swollen on the affected side, the lachrymal duct seriously obstructed, and the skin irritatated somewhat by the flow of tears. On looking into the mouth, which was done under chloroform, pus was observed exuding from the middle of the alveolar process in the right side. The introduction of a small probe into this little sinus at once revealed the presence of a minute scale-like exfoliation, which was easily removed by means of a small dissecting forceps. This done, I at first supposed that there was nothing more to do, and as the parents were extremely nervous about the anæsthetic I was not unwilling to believe that the time had come to permit a restoration to consciousness, and so relieve their apprehensions.

A moment's reflection, however, induced me to suspect that the exfoliation which had just been removed, was insufficient to account for all the conditions present, and I therefore insisted upon a more prolonged exploration. On passing the probe into the opening in the alveolar margin, it at length appeared to touch something in the antrum, which appeared to be unattached. Accordingly I used a pair of pointed dressing forceps to increase the calibre and the little sinuous channel in the alveola, and then I had no difficulty in seizing, and by the exercise of some force withdrawing *the perfectly developed crown of a perfect molar tooth*, with a little mass of glandular structure, which reposed in the concave surface from which the fang should naturally have projected.

No other treatment was advised, and some months afterwards I saw the little patient in good health and much improved as regards the facial deformity.

The specimens derived from this case are now in the possession of Prof. Taft of the Dental College University, by whom they were recently presented at the meeting of the State Dental Association, the members of which were unanimous in the opinion that the case is an unprecedented one.

The Seton.—In the recently-published report of the United States Marine Hospital Service will be found a paper by Dr. Griffiths on the "Seton in Paralysis and Epilepsy." Of eighteen cases of hemiplegia treated in the Marine Hospital, Louisville, in one case only, that of a patient who died under treatment two months after admission, did the seton fail to benefit. Of the other seventeen cases, ten recovered, and the rest were much relieved. Four out of the five cases of epilepsy treated with the seton were greatly benefited. The author introduces a large seton fifteen to twenty strands of silk or flax thread, and allows it to remain for months if necessary, removing it only when the patient is either permanently improved, or too great irritation is produced. Dr. Griffiths states that he has also used the seton with good results in the treatment of obstinate iritis.—(*Lancet*, March 16th, 1878.)—*Practitioner.*

Diffusion of Cancer along the Nerves. Dr. COLOMIATTI relates (*Revista Clinica di Bologna* and *Lo Sperimentale*, March) a case which occurred in Dr. Spantigati's practice in the Hospital of St. John, in Turin, in support of his theory of the manner of diffusion of cancer.

The subject was a man, aged 40, who had apparently been always healthy, but in whom, after intense neuralgia in the part of the left cheek, corresponding to the lower teeth, a tumour grew from the inner side of the gum, at the seat of pain. The tumour, which increased rapidly, was diagnosed by Dr. Spantigati as cancerous, and was removed, along with the portion of the lower jaw extending from the left canine tooth to the temporo-maxillary articulation. Surgically the operation was successful, and the wound soon healed completely; but, after remaining some time in hospital, the patient was obliged to return to his home, still suffering severely from acute pain, which was only temporarily relieved by subcutaneous injections of morphia.

The tumour, with the bone removed, was presented to Dr. Colomiatti for examination. It was lobulated, and nearly as large as a hen's egg. It contained in its substance the dental nerve, which, however, could be followed for more than four-fifths of an inch before its entrance into the dental canal. Along with the tumour a suprahyoid gland was removed, as it was somewhat hard.

After a careful examination, Dr. Colomiatti was led to agree with Dr. Spantigati as to the carcinomatous character of the tumour. Its origin from the epithelial covering of the gum, at a point corresponding to the molars, explained, in his opinion, the dental neuralgia which preceded its appearance.

Dr. Colomiatti next turned his attention to the dental nerve, the posterior portion of which seemed to be more voluminous than normal. Sections of the portion comprised in the tumour presented remarkable changes, in explanation of which Dr. Colomiatti refers to the view held by Robin, Key and Retzius, etc., according to which two forms of connective tissue enter

into the formation of nerves—viz., the epineurium, and the perineurium with its appendage, the endoneurium.

The epineurium connects the funiculi, which form every nerve-trunk; the perineurium and endoneurium form an integral part of each funiculus. Their connective tissue consists of small membranous films, between which are the so-called perineural and endoneural lymph-spaces, which, however, have nothing to do with the common lymphatic system. These membranous films, the endoneural membranes, which proceed from the perineurium, surround the nerve-fibres. Each nerve-fibre is thus suspended in a lymph-space.

In the case now under consideration, Dr. Colomiatti states that he found, on making section of the dental nerve, an abundant cancerous infiltration, diffused along the perineural and endoneural spaces, the perineurium presenting solutions of continuity, due to the invasion of the epineurium by the cancer-cells.

Dr. Colomiatti says that this is the second case in which he has observed the diffusion of cancer in the inferior dental nerve. There is, however, a difference between the two cases. In the first (cancer of the lower lip), the disease was diffused by the lymphatic vessels belonging to the neighboring glands; while, in the present case, the gland which was removed, in consequence of being hard and probably cancerous, was found, on examination, to contain no cancer-cells, and the diffusion of the disease had taken place solely along the nerve. This supports the idea of Colomiatti, that the nerve may become diseased before the lymphatics, and independently of them; the lymphatics become infected later, and when they do, the disease proceeds more rapidly. In this case it was observed that the anterior portion of the nerve, which was examined, had no cancer-cells in its lymph-spaces; hence he infers that the diffusion took place centripetally.

The persistence of the severe pains, in spite of the complete removal of the tumour with the neighboring parts, is ascribed by Dr. Colomiatti to the diffusion of the disease along the nerves; and he advises that, before undertaking an operation in such cases, the state the nerve should be observed. —*London Medical Record.*

Extraction of Steel and Iron from the Eye by the Magnet.—The following cases, recorded by Dr. W. A. McKeown, Surgeon to the Ulster Eye, Ear, and Throat Hospital (*British Med. Journal*, May 4, 1878), will be of interest taken in conjunction with that recently brought before the Clinical Society of London by Mr. McHardy.

Case I.—Dawson B., aged 24, smith's helper, applied to me at the Hospital on January 16, 1877. He stated that three days previously, his right eye had been wounded by a small piece of metal. I observed that the iris was attached to the lens at the outer part of the pupil by recent lymph, and that there was a small limited opacity of the lens. There was a small, clear, metallic body sticking at the margin of the adherent pupil. I made a small section of the cornea, more peripheral than the pupil, introduced a pair of iridectomy forceps, seized the body and a little piece of iris, but the body slipped from my grasp, and was sliding out of my reach. Fortunately, I anticipated such an untoward event, and took care to have a pointed permanent magnet at hand. I introduced it into the wound. The metal was instantly attracted and extracted. The patient continued under my observation till February 16. The opacity of the lens remained limited to the point wounded. I believe that the wound in the capsule was closed by lymph and healed. I have not seen or heard from the patient since.

Case II.—Moses E., aged 32, millwright, consulted me at the Hospital on November 20, 1877. He stated that three-quarters of an hour before his visit, his right eye had been wounded by a chip of steel from a hammer. I observed a wound a little more than a line long in the ciliary region just at the corneo-sclerotic junction. One end of the wound penetrated the anterior chamber, as shown by the evacuation of the aqueous humour and a slight displacement of iris towards the wound. The wound was quite clean, and no foreign body was visible. The media were clear. The ophthalmoscope did not disclose the presence of any foreign body. I put the point of the magnet cautiously into the wound, and at once it proved the presence of metal within the sclerotic by the click and the attraction. By

a little patient and careful use of the magnet, the metal was brought into the wound, and the end of it exposed so far as to enable me to grasp it with forceps. Having caught it I easily extracted it. The fragment was a thin piece about one and a half lines long, one line in width at one end, and half a line at the other end. The patient recovered completely, and returned to work on December following.

There can hardly be a doubt that the magnet saved the eye in both cases. In the first case, to have followed the sharp fragment with forceps would probably have inflicted irreparable damage, and indeed the body might have got out of the way altogether. In the second case the metal would but for the magnet probably have remained undetected, and have afterwards lighted up destructive inflammation. Even had it been detected, it would not have been possible, but for the magnet, to extract it without enlarging the wound, and that is not desirable in any part of the eye, much less in the ciliary region. By the magnet the diagnosis was established, and the extraction was accomplished in the most delicate way.

Case of Gunshot Wound of the Brain.—Dr. Rossi relates in the *Annali Universali di Medicina e Chirurgia* for December, 1877, the case of a lad, aged 16 or 17, who, having bought a revolver, was one day amusing himself by shooting at a target with one of his friends. After discharging some shots, he recharged the weapon and drew the trigger, but it would not go off; he therefore looked down the tube, when the revolver exploded suddenly, the ball striking the upper part of the left eyelid, just outside the groove for the passage of the vessels and the supra-orbital nerve, fracturing the frontal bone, and entering the brain.

At first only the immediate local symptoms were observed but the next morning the right arm was painful and paretic, and there was an appearance of brain-substance at the orifice of the wound. In conjunction with Dr. Rouge, Dr. Rossi made an incision about an inch and a quarter upward, when the pulsations of the cerebral matter, isochronous with those of the heart,

were distinctly discerned, and there was found to be a radiated fracture of both tables of the frontal bone immediately above the orbital arch. Through this a probe could be easily introduced to the depth of five centimetres (two inches) in an oblique direction, from below upwards, and from before backwards, without coming into contact with the projectile. Ice was applied, and six leeches behind the left mastoid process.

Contrary to all expectation, the pain and paresis of the right arm soon disappeared; the cicatrization of the wound took place without necrosis, and almost without suppuration; and the patient was well in a few days.

The author, assuming it to be certain that the bullet entered the brain, asks in what part of that organ it could be lodged, there being no nervous disturbance, either paretic or paralytic. *London Medical Record.*

Syphilitic Interstitial Glossitis.—Dr. C. MAURIAC has published an account of this affection (*Le Progrès Medical*, 1877, No. 45), which is in character similar to syphilitic sarcocele, and consists of an inflammatory induration of the fibrous partitions separating the muscular fasciculi of the tongue. It begins always in the dorsal surface, at first being superficial, and then invading the deeper tissues. It is more frequently met with in men than in women. There appear to be a hypertrophic and an atrophic period. In the former the enlarged, hard, and painful tongue presents on the dorsal aspect hollow furrows filled with macerated epithelium. There are noticed large papillæ, and often ulcerations, at the points where the tongue touches the teeth, or in the bottom of the above-mentioned furrows. The second stage is that of retraction of the new tissues, and then there is a deep and antero-posterior fissure, with several irregular fissures. Finally as atrophy progresses, the organ becomes smooth and shining, is divided into little lobules, and gives the sensation of a tongue made of wood. Specific treatment is seemingly of some service in the early stages, but is entirely useless when the disease is advanced.—*London Med. Record.*

Remedies in Epilepsy.— Dr. ERLENMEYER, in the *Correspondez Blatt*, collects a number ef testimonies, from different German physicians, to the benefits derived from the treatment of epilepsy in asylums and institutions for idiots.

Dr. Bertelsmann, physician to the Institution for Epileptics at Bielefeld, remarks, that though he does not believe bromide of potassium to be a specific agent against epilepsy, he is persuaded that it occasionally effects a cure. At the same time he quotes the opinion of Dr. Auguste Voisin, that though oxide of zinc acts more slowly than the bromide of potassium, its effects are more certain; and after having used both these medicines for more than twenty years he habitually gives the preference to the oxide of zinc, used after the method of Harpin, of Geneva. Dr. Erlenmeyer has tried bromide of lithium, which was recommended by Dr. Levi, of Paris, as more efficacious than the bromide of potassium, and as having no action upon the heart.

From his own experience he is disposed to believe that it is inferior to bromide of potassium as a remedy against epilepsy. He has also tried bromide of quinine, and found it had a more hypnotic action than bromide of potassium; he finds it useful in treating periodic fits of insanity and hypochondria, but is not inclined, on the whole, to give it the preference to the more commonly used drug.—*Medical and Surgical Reporter.*

Bichromate of Potash in Syphilis.— In the *Annales de Ciencias Medicas*, for April, Dr. Carlos Vincente Charpantier gives a series of cases illustrating the value of bichromate of potash in secondary and tertiary lesions. Though not altogether new, this treatment is not much known, and yet, from these observations, well deserves to be. The dose is one-fourth of a grain, doubled every three or four days to two or three grains. During the treatment, all alkaline substances are prohibited, as liable to neutralize the chromic acid, which is the active agent. From some experiments on himself, Dr. C. finds the bichromate to lower both pulse and temperature in a marked degree.—*Medical and Surgical Reporter.*

Syphilitic Disease of the Nose. — In the *Vierteljahrschrift fur Dermatologie und Syphilis*, Band iv. Hft. 1 & 2, SCHUSTER and SANGER recommend the use of the scraping spoon for the removal of syphilitic growths of the nasal cavity, to prevent falling in, and to arrest the disease process. Even perforation of the palate by scraping is at times the lesser of two evils. Artificial illumination should be used. Pathologically the conditions existing vary. There may be—1. simple syphilitic infiltration, the mucous membrane not hypertrophied, with or without alteration of the glands, capillaries or epithelium; 2nd, the same with hypertrophy of the mucous membrane and constriction of the dilated capillaries, by means of cell growth, or. without this, a fact favouring the views of Auspitz and Unna, upon the anatomy of the initial induration, namely, that the vessels remain, as a rule, unobliterated; 3, more severe infiltration of the mucous membrane, passing into syphiloma; 4, epitheliomata of the mucous membrane or condylomata. The subjacent bones and cartilages may show either necrosis with exfoliation, absorbent inflammation, without loss of the mucous membrane, or, plastic osteitis, with the production of spindle cells and connective tissue, passing into bony formation.

The practical points are these: 1. Whereas, ulceration of the mucous membrane has been held by writers to be the sole cause of ulceration of the bone and cartilages of the nose, this need not be the case. That membrane may remain uninjured while the subjacent tissues undergo changes like those of the tibia or frontal bone. 2. A healthy mucous membrane may be caused to ulcerate by mechanical interference, and then this ulceration may extend to the bones, or the disease in subjacent bones pass over to the injured membrane.—*London Med. Record.*

Carbolate of Chalk in Favus.—The *Archives of Dermatology* states that Dr. Sawicki uses a paste of pulverized chalk or gypsum, containing 5-10 per cent. of carbolic acid. This is applied all over the head after cutting the hair short. On the third day after, the dressing is removed, the head washed with soft soap and water, and the paste reapplied. A little oil may be added, to render the dressing more pliable. It is said to effect a cure after three or four applications. —*Medical and Surgical Reporter.*

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1878.

THE BRITISH MEDICAL AMENDMENT BILL.

The Bill of Amendment to the British Medical Act of 1858 is still before the House of Commons, and although it has passed the second reading, it is by no means certain that it will become law during the present session. The number of corporate bodies, holding each and all of them licensing powers, has led to unhealthy competition, and in some instances the laxity in examination is such as to be viewed with alarm by the profession generally, as well as by the thinking public. It is true that the public, as a rule, do not estimate the relative value of the diplomas issued by any of those bodies, so that whether a man has obtained an M.D., from a university, or a license from a college, it becomes a matter of small moment when his services are required.

The Bill as introduced appears to give small satisfaction, inasmuch as it does not deal with the objectionable system complained of: that is, it grants permission to two or more bodies to conjoin and form a central examining board, but it does not decide the question at issue by enacting that it shall be compulsory for the licensing bodies in each section of the kingdom, to form themselves into a central board of examiners, and that a diploma or degree shall be recognised as alone conferring an honorary distinction. It would appear that anything short of this will not be acceptable to the profession in Great Britain, and we have no doubt, an act with one door of entrance into the profession will ultimately be obtained.

There is, unquestionably, a desire to obtain such an act, and it certainly looks ungracious on the part of the Scotch and Irish corporations to refuse to surrender priviliges which were in

every way admirable for the days in which their charters were granted, but which at the present time are not in accord with the spirit of the age. But while there exists an earnest desire to secure the one portal system for admission of aspirants to the practice of the profession of Medicine and Surgery in Great Britain, it must be borne in mind that in the mother country legislative enactments are difficult to obtain, and when once granted most difficult to over-ride by a bill of amendment. Legislation is, as a rule, more substantially managed in England than in most other countries, any measure of reform is not hastily introduced, nor pushed through without being well considered, and its bearing on the rights of others fully discussed, so that the time of several sessions of the Imperial parliament are usually passed over before a bill which may have been introduced is permitted to pass into law. It is this very system of careful legislation which secures to Great Britain the respect of other nations, no frothy declamation from any number of stump orators being at all likely to guide the councils of the nation.

There can be no doubt of the injury done to the profession by the multiplication of licensing bodies; it is an evil which has been felt in our own country, and nothing can more fully prove this fact than the present system adopted in the United States of America.

The multiplication of licensing bodies for entrance into the liberal professions must result injuriously in any country. This state of things is recognized as a great injury to the medical profession in our own country and also in the neighbouring Union, only perhaps in a more marked degree than that complained of in Great Britain. In Canada we are striving to remedy the evil, and in one Province at least (Ontario) a check has been given to the wholesale licensing of poorly qualified men by the establishment under legislative enactment of a central board of examiners. We should be pleased to record that similar boards existed in all the provinces of the Dominion, or, what in our opinion would be better, a central board for the whole Dominion, having in each Province local boards, but all subject to one head or one general council.

McGILL MEDICAL SOCIETY.

The third regular meeting of this Society, for the Summer Session was held May 4th, Dr. James Bell presiding. After reading and confirmation of the minutes, Dr. Ritchie was proposed for membership.

Dr. Osler reported a case of Retro-peritoneal Cancer, or Lympho-sarcoma, in a child, occurring in the practice of Dr. Gardner. At the autopsy a large tumour was found occupying the right half of the abdominal cavity. The right kidney was imbedded in it. The ureter constricted and the pelvis of the kidney somewhat dilated in consequence. Above it was attached to the liver and had eroded one rib.

On section, the appearance was much like that of a fœtal brain, being soft and pulpy in consistence with alternate streaks white and grey in color.

Under the microscope were seen sections showing its structure of small round bodies like lymph corpuscles.

Another enormous specimen of the same kind of growth and occurring in the same situation in the abdomen of an adult, was also exhibited. It measured a foot or more in diameter, was lobulated in appearance, of very firm consistence, and had weighed when extracted about 40 lbs.

A third specimen exhibited by Dr. Osler was a kidney taken from a man who had died from a severe burn, the immediate cause of death being the consequent pneumonia. On section, it showed numerous minute white spots of fatty degeneration, the result of the inflammation caused by the burn.

Mr. Lyford exhibited a large, fatty tumour from the tuber ischii of a dog.

Mr. L. D. Mignault read a paper upon a case of Phlegmasia Alba Dolens, under the care of Dr. Fenwick, in the Montreal General Hospital.

G. R., æt. 32, was admitted on April 23rd, two weeks after her first confinement in which she had been attended by a midwife. Slight swelling of the left leg was noticed during the latter part of gestation. The labour was long and difficult, and followed by considerable hæmorrhage. Child still born.

Lochial discharge slight. At times some hæmorrhage. On admission the patient was evidently in a septic condition. Temperature, 105° ; pulse 126. Left leg tender and swollen, but does not pit on pressure except about ankle. Patient got gradually worse in spite of all treatment, which consisted chiefly of quinine and salicylic acid, with stimulants. Died on the 28th.

At autopsy the uterus was found to be large. The internal surface of a dirty, greenish hue, with rough shaggy masses adherent at the fundus, and in these numerous veins were found filled with thrombi.

Ovarian veins large. Veins passing from uterus in left lateral ligament plugged with thrombi which extend into the internal iliac, and so to the common and external iliac, completely occluding those vessels. Femoral vein also contained a small thrombus. Nothing of special importance in the other organs.

The reader gave a summary of the different opinions regarding the pathology of the disease, and noticed the bearing on this individual case.

May 11th, 1878.

The regular meeting held this evening, Dr. James Bell in the chair.

Dr. Ross. who was prevented being present by urgent professional duties, requested Dr. Osler to exhibit for him the following :

(1). Finger of a child destroyed by the action of a strong solution of carbolic acid applied by the father. Dr. Ross brought the child to the Hospital and there amputated the finger, which presented all the characteristics of dry gangrene.

(2). A tapeworm of the species taenia medio-canellata, or that got by eating measly beef. This Dr. O. thinks is the most common variety in this country, eight to nine tenths of all the specimens examined by him being such. It differed from the pork tapeworm in not being provided with a circle of hooklets around the head. The specimens exhibited had been very hard to dislodge but had at last yielded to emulsion of pumpkin seeds and oil of the male fern.

The paper of the evening was read by Mr. Lloyd, subject Taenia Echinococcus, based on a case in the Montreal General Hospital, under the care of Dr. Ross.

R. A., æt. 25, male, admitted March 22nd, 1878, for pneumonia brought on by exposure while on a spree. Died on the 26th.

Autopsy.—On attempting to remove the liver it was found closely adherent to the diaphragm, and on the upper and posterior part was discovered a large echinococcus cyst, 4½ inches long by 3 inches wide.

On section, the following parts were seen:

(1). External cyst wall, intimately adherent to the liver substance. It is firm and fibrous in consistence, and in several places cartilaginous, with here and there masses of soft cretaceous matter.

(2). Lining this was the proper cyst sac or parent cyst, a thin translucent membrane.

(3). On opening the parent cyst a clear, jelly-like fluid escaped together with several secondary cysts, from the size of a hen's egg to that of a plum.

(4). Besides these were tertiary or grand-daughter cysts, the size of marbles down to that of peas.

(5). On microscopic examination many of the tertiary cysts were found to contain only granular matter, in others were innumerable hydatid heads, 1-60 to 1-100 of an inch in diameter, provided with a circle of hooklets 30 to 40 in number, and four round sucking discs. They were floating free in the fluid and none of the structures known as brood-capsules were met with.

(6). In some of the tertiary cysts the development of a fourth generation could be traced in the form of small bead-like projections from the lining membrane, ranging in size from a pea downwards.

Taenia Echinococcus in its mature state is found in the small intestine of the dog and wolf, is not more than ¼ of an inch long, and consists of four segments. including the head with its hooklets, and four sucking discs. The terminal segment is pos-

sessed of male and female organs of generation, and contains about 5000 eggs, which escaping obtain entrance to the stomach of man or other parasite bearer. Here the gastric juice dissolves off the shell, and the little embryo contained in it being set free enters the circulation, selects a site for settlement, most commonly the liver, and is there transformed into a simple vesicular body, generally called a hydatid cyst.

From the lining wall of the original cyst a process of germination begins which is repeated in the secondary cysts thus formed, so that one embryo may produce thousands of larvæ or hydatid heads, each capable of developing, (if introduced by any means into the intestine of the dog,) into a mature worm. The disease is rare in America, but so common in England that some writers state that every 7th, others every 3rd, inhabitant is the subject of it.

May 18th, 1878.

The regular meeting of the society was held this evening, Dr. Bell in the chair.

Dr. Osler exhibited (1.) Specimens of different organs from a man who died in the Montreal General Hospital, the subject of Acute General Miliary Tubercle. The lungs and peritoneum were most extensively diseased, being probably infiltrated with the tubercle.

(2.) Thoracic duct of the same subject which was of interest as being obstructed by chronic inflammation of the Intima, and much distended with a fluid containing red blood corpuscles.

(3). A section of bone from a case of Anæmia, the marrow being in a condition of hyperplasia, and containing nucleated red blood corpuscles, which were probably in a state of transition from marrow cells to red blood cells.

(4). A kidney taken from a fœtus of seven and a half months. The organ was the seat of a Cancer Sarcoma, and was much enlarged, weighing 4 oz. The whole mass of the organ was made up of spindle-shaped cells and renal epithelium.

(5). A kidney from a child in the practice of Dr. Roddick, the seat of Myelo-sarcoma, consisting of striped muscle cells.

This form of growth is very rare in organs not containing muscle fibre. One has been reported in the uterus, one in the testis and this was the second case reported of one in the kidney. This occurrence in the genito-urinary system was explained by the close connection of the Wolffian body in the fœtus with the middle layer of the blastoderm, from which the muscular system is developed.

The paper of the evening was read by Mr. Gray, subject Pyæmia. He reported (1) a case which he met in Western Ontario, occurring in the practice of Dr. Stewart.

A. B., a boy æt. 5, who had always been healthy, and who had no history of any constitutional disease, was taken with severe pain in the left hip, which afterwards extended to the other joints. It was diagnosed and treated for a while as a case of acute rheumatism. In two weeks abscesses formed in different situations, chiefly in left hip, left shoulder and in lumbar region, and the patient presented all the symptoms of Pyæmia. As the child refused to take medicine the treatment consisted chiefly of hygienic and supporting measures which were thoroughly carried out, and in the course of a few weeks the symptoms improved and the child made a rapid recovery.

The cause of this case of Pyæmia, as it certainly appeared to be, was obscure. There was no suppurating sore, caries of bone, nor any of the ordinarily accepted causes present, and the reader reasoned that it originated from inhalation of septic particles in the atmosphere.

(2). A case in the Montreal General Hospital: S. S., æt. 19, male, had led a very irregular and dissipated life. and lived under bad sanitary conditions. Admitted March 15th, 1878, suffering from pyæmic symptoms. Died April 3rd. No autopsy could be obtained, and the only history of any local sore was that he had been paring a corn, and the symptoms first appeared in that situation. This the reader did not consider of much weight, and thought it more reasonable to suppose that in this case the disease was of miasmatic origin.

Lively discussion followed. Dr. Shepherd thought that the last mentioned case was plainly due to absorption of septic

matter from the corn; he cited cases in which the disease had been set up by so slight a cause as the prick of a pin.

Dr. Vineberg thought that in the first case there might have been acute periostitis present, which is a recognised cause of the disease; might be produced by cold, and was not necessarily followed by caries of bone.

Dr. Bell said he was very sceptical about cold being a cause of acute periostitis.

Mr. Gray explained that the exposure to cold in this case, though not given by the parents as the cause of the disease, was slight, and that it had no weight with him.

Medical Items and News.

MONTREAL GENERAL HOSPITAL.—At the annual meeting of the Board of Governors of this Hospital, held on the 23rd of May, ultimo, at which the election of officers for the ensuing twelve months took place, the Secretary read a letter of resignation from Dr. J. M. Drake, one of the attending Physicians. On motion of Dr. G. W. Campbell, Dr. Drake was unanimously elected on the Consulting Staff of the Hospital. The vacancy in the Attending Medical Staff created by the resignation of Dr. Drake, was filled by the election to that responsible position of William Osler, M.D., L.R.C.P., London. We congratulate our young friend on his appointment, which we regard as in every respect a most judicious selection.

By the steamer of the 25th May, ultimo, Dr. George Ross, Professor of Clinical Medicine, McGill University, and Dr. William Osler, Professor of Institutes of Medicine, McGill University, left for Europe.

Dr. Brown-Séquard has been elected as successor to the late Claude Bernard, as Professor of the College of France. This is a most judicious appointment, as few persons have done as much to elucidate the somewhat obscure features of brain and nervous organization than Brown-Séquard, as well as the rational treatment of brain and nervous affections.

By Lunsford P. Vandell, M.D., *Professor of Therapeutics and Clinical Medicine in the University of Louisville.*

"A year since, when Dialysed Iron was a novelty, I commended it to the *News*, as a most valuable addition to the Materia Medica. Twelve months of additional experience have confirmed my faith in its excellence. The object of this note is to call attention to the great variety of *spurious* preparations sold under the name of Dialysed Iron. In this city I have found nine varieties of so-called Dialysed Iron. Some of these were manufactured here, but most of them were made elsewhere. Genuine Dialysed Iron is nearly tasteless. It has the faintest possible saline flavor and a mere suspicion of roughness. Slightly diluted, its taste recalls that of fresh blood. It is not in the least unpleasant, and does not blacken the teeth or tongue. It seldom or never produces any gastric disturbance or headache, and very rarely constipation. It is exceedingly reliable and rapid as a tonic.

"The *spurious* forms of this drug are without the characteristic of taste and efficacy above enumerated, and chemical analysis readily detects their deficiencies. One of the spurious specimens before alluded to, was little less unpleasent than the Tincture of Muriate of Iron, another was excessively acid, another was decidedly saline, another was exceedingly astringent, another was sweetish, another was bitter, and another was seemingly only colored water; another more nearly approached correctness, but only a single specimen possessed the peculiarities of the true article.

"My attention was first directed to this matter through the failure or misbehaviour of the Dialysed Iron in practice. It is but just to say that the good specimen is from WYETH & BROTHER, the original manufacturers of the medicine in America. Wyeth's Dialysed Iron sells at about a dollar a pound. Other makes may be bought at about fifty cents."—*Louisville Medical News.*

WHOLE No. LXXII. JUNE, 1878.

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All Communications, Exchanges, and Books for Review, must be addressed to the Editor, GEO. E. FENWICK, M.D., Drawer 386, Post office, Montreal, and Postpaid. Communications for insertion must be received before the 15th of the month.

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Doctors who had formed a prejudice which caused them to favor gelatine-coated pills, on account of their much vaunted merit for solubility, write us, that their delicate patients revolt at their ugly color and shape. Physicians throughout the country have it in their power to disprove their claim for greater solubility, as samples of gelatine-coated pills, in small paper boxes, have been extensively distributed within a comparative y decident ate.

After being kept for a time, they become hard and brittle. The enclosed mass, as well as the gelatine coating, losing all its moisture. is proved that gelatine is not non-pervious, and is certainly not the proper material with which to protect medicinal substances, especially phosphorus in particular form.

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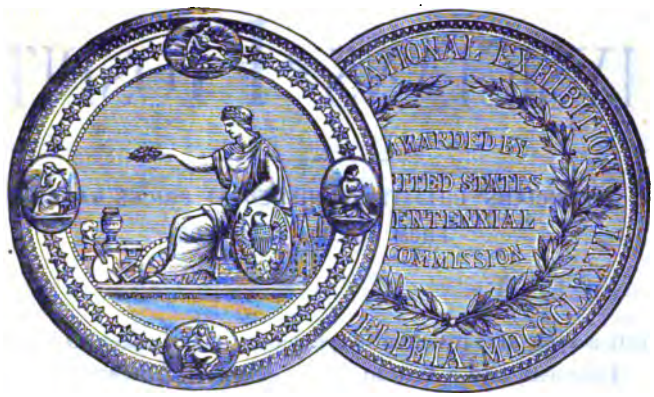
WORLD'S FAIR MEDAL,

PHILADELPHIA, 1876.



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[illegible] and affections of the Stomach, such as *Inflammation, Gastralgia, Pyrosis,* &c., it may be combined with [illegible] of Stomach and opiates; and in Diarrhœa and Cholera Infantum, with astringents, both [illegible]. I have given the article to several prominent physicians, who have used it with the [illegible] among whom I may mention Prof. E. WALLACE, of the Jefferson Medical College; he gives [illegible]

[illegible] of Pregnancy, out of nine cases he cured six, and palliated two, and in one case the remedy [illegible] and therefore had no effect.

[illegible] Sick Stomach, caused by chronic inflammation of the uterus; cured five, and two [illegible] in a case of very obstinate Sick Stomach, caused by an irreducible hernia, [illegible] gave any relief.

[illegible] Vomiting of Pregnancy is a sore affliction, and in some cases [illegible] a calamity; but in INGLUVIN we have a remedy which will [illegible] think vomiting must be endured as a natural consequence. [illegible] necessity to make use of the remedy, I am positive [illegible] sufferers who claim our sympathy.

[illegible] more than five, except in obstinate cases. For children, from [illegible] a spoonful of water or tea, or it may be strewn on a piece [illegible] however, many minutes. In Dyspepsia and in Vomiting [illegible] take such meal. In other affections of the Stomach [illegible] in complicated cases, as heretofore rec-

[illegible] obtained from the chicken are various. When I commenced to [illegible] the lining membrane of the gizzard; but it requires [illegible] to destroy its virtues. There is [illegible] summer and extreme cold of winter, as re- [illegible] efficacy, purity and sweetness. Later, [illegible] the above reasons, I consulted with [illegible], who have prepared a form, designated [illegible]

[illegible] Reporter," February 3rd, 1877.

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TROMMER'S EXTRACT OF MALT.

The rapidly increasing demand for our IMPROVED EXTRACT OF MALT, during the four years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here we are meeting a generally felt want.

Long experience in manufacturing Malt Extract has enabled us to completely overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or molding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while, by avoiding the expenses of importation, it is afforded at less than half the price of the foreign article.

The Malt from which it is made is obtained by carefully malting the very best quality of selected Toronto (Canada) Barley. The extract is prepared by an *improved process*, which prevents injury to its properties or flavor by excess of heat. **It represents the soluble constituents of Malt and Hops,** viz., MALT SUGAR, DEXTRINE, DIASTASE, RESIN and BITTER OF HOPS, PHOSPHATES OF LIME and MAGNESIA, and ALKALINE SALTS.

Attention is invited to the following analysis of this Extract, as given by S. H. Douglas, Professor of Chemistry, University of Michigan, Ann Arbor:—

TROMMER EXTRACT OF MALT CO.—I enclose herewith my analysis of your Extract of Malt:

Malt Sugar, 45·1; Dextrine, Hop bitter, Extractive Matter, 23·6; Albuminous Matter (Diastase), 2·469. Ash—Phosphates, 1·712; Alkalies, ·377. Water, 25·7. Total, 99·958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœa, as given by Hager, that has been generally received by the profession, I find it to substantially agree with this article.

Yours truly, SILAS H. DOUGLAS,
Prof. of Analytical and Applied Chemistry.

This invaluable preparation is highly recommended by the medical profession, as a most effective therapeutic agent, for the restoration of delicate and exhausted constitutions. It is very nutritious, being rich in both muscle and fat-producing materials.

The very large proportion of *Diastase* renders it most effective in those forms of disease originating in *imperfect digestion of the starchy elements* of food.

A single dose of the Improved Trommer's Extract of Malt contains a larger quantity of the active properties of Malt than a pint of the best ale or porter; and not having undergone fermentation, is absolutely free from alcohol and carbonic acid.

The dose for adults is from a dessert to a tablespoonful three times daily. It is best taken after meals, pure, or mixed with a glass of milk, or in water, wine, or any kind of spirituous liquor. Each bottle contains 1½ lbs. of the Extract.

Our preparations of Malt are for sale by druggists generally throughout the United States and Canadas, at the following prices:—

EXTRACT OF MALT, *With Hops (Plain)*,	$1 00
" " " *Pyrophosphate of Iron (Ferrated)*,	1 00
" " " *Cod Liver Oil*,	1 00
" " " *Cod Liver Oil and Iodide of Iron*,	1 00
" " " *Cod Liver Oil and Phosphorus*,	1 00
" " " *Hypophosphites*,	1 50
" " " *Iodides*,	1 50
" " " *Alteratives*,	1 50
" " " *Citrate of Iron and Quinia*,	1 50
" " " *Pepsin*,	1 50

Manufactured by

TROMMER EXTRACT OF MALT CO.,

FREMONT, OHIO.

The Trommer Extract of Malt Company guarantee to the Medical Profession the excellent quality and absolute reliability of their Extract of Malt, and all its combinations.

—o—

Extract of Malt,

WITH COD LIVER OIL.

FIRST PROPOSED BY DR. F. H. DAVIS, OF CHICAGO.

(*See Transactions of American Medical Association, for* 1876, *page* 176.)

Is presented to the medical profession, as an efficient, palatable and very stable combination, consisting of equal parts of the ***Extract of Canada Barley Malt***, and the best quality of genuine ***Norwegian Cod Liver Oil.*** Many patients take this preparation who can not take the oil in any other form. It may be employed in all cases where Cod Liver Oil is appropriate, but is peculiarly adapted to those complicated with disordered digestion.

Extract of Malt,

with Cod Liver Oil and Phosphorus.

Consists of equal parts of Extract of Malt, and pure fresh Norwegian Cod Liver Oil. Phosphorus being added in the proportion of 1-100 grain to the dose, and so combined as to be perfectly protected from oxidation. The ***Trommer Extract of Malt Company*** prepare this combination agreeably to the suggestion of ***Dr. Wilson Fox***. It is specially adapted to cases of phthisis, bronchitis, pernicious anaemia, and diseases of the nervous system.

Extract of Malt,

with Cod Liver Oil and Iodide of Iron

added in the proportion of one grain to the dose. This combination is intended to meet those cases where the physician desires to add a more energetic alterative and restorative to the treatment with Cod Liver Oil and Extract of Malt. The manufacturers have received numerous letters from prominent physicians referring to it in terms of high praise.

T. MORSON & SON,

31, 33 & 124

Southampton Row, Russell Square, W. C

WORKS

HORNSEY ROAD, N., and SUMMERFIELD WORKS, HOMERTON, N. E., LONDON.

MANUFACTURERS OF

PREPARATIONS OF PEPSINE,

Pure Chemicals and all New Medicines.

SPECIALITIES:

Morson's Pepsine (The original English Manufacturers)
Morson's Pepsine Porci Pure.
Morson's Pepsine Powder or Poudre Nutritive.
Morson's Pepsine Wine.
Morson's Pepsine Lozenges.
Morson's Pepsine Globules.
Morson's Pancreatine Powder.
Morson's Pancreatic Emulsion.
Morson's Pancreatized Cod Liver Oil.
Morson's Saccharated Wheat Phosphates.
Morson's Creasote (from Wood Tar) the only English makers
N.B.—Test of purity, insoluble in Price's glycerine
Morson's Gelatine (The most economical substitute for Isinglass.)
Morson's Chlorodyne.
Morson's Effervescing Citrate of Magnesia.
Morson's Artificial Essences for flavoring.

Sold Wholesale and Retail by all Chemists and Druggists throughout the World.

obviates the sickening sensation so universal in swallowing a round Pill.

McKESSON & ROBBINS'

PILLS AND GRANULES,

OF THE

U. S. PHARMACOPIA & OTHER RELIABLE FORMULÆ,

GELATINE-COATED,

Process and Machinery Patented,

91 & 93 Fulton, 80, 82 & 84 Ann Sts., N. Y.

NEW THERAPEUTICAL NOTES.

CHARCOAL, WILLOW, ... 5 grs.

The value of pure powdered Willow Charcoal in Dyspepsia, Indigestion and all affections arising from derangements of the stomach, such as Headache, Heartburn, &c., is well known. Its value must necessarily be much increased, since it is, for the first time, presented in a convenient, reliable and unobjectionable form, in our Gelatine-Coated Pills.

IRON, DIALYSED, ... 2 grs.

Made from Merck's scales or plates of Dialysed Iron, and, about 20 times the strength of the Solutions in market.

SALICIN, ... 2½ and 5 grs.

Salicin is becoming more and more favorably known in the treatment of Rheumatic affections, also as a Tonic, Astringent, and Anti-Periodic, and is best exhibited in our Gelatine-Coated Pills. In Acute Rheumatism, Salicin has been found very efficacious, and according to "The Lancet," not less certain, than Quinine is for the Ague. In large doses, it has been claimed to be an absolute specific in Cornëitis (suppurative). Price, reduced.

MONOBROMATED CAMPHOR, ... 2 and 3 grs.

Is now being considerably used in treatment of Spermatorrhœa; strongly recommended in cases of Cerebral-Anæmia; used successfully in Infantile Convulsions from teething; Hysteria; Headache from over study or nervousness, and Nymphomania. (Dose, 3 to 4 grs.)

CALCIUM, SULPHIDE, ... 1-10 gr.

Strongly recommended "in cases of Scrofulous and other unhealthy sores, Glandular Enlargement, Boils occuring in crops, &c." In many skin diseases, it is strongly indicated, being not ouly Anti-parasitic and Anti-herpetic, but also stimulant and tonic.

An eminent physician, who has given much attention to the use of Sulphide of Calcium and cites several very interesting cases of cures of Abscesses, through its medium. In his words: "The Sulphide of Calcium is indicated in Scrofulous and unhealthy sores and Glandular Enlargements, in Boils appearing in crops, and in carbuncles—in any diathesis with a tendency to Abscesses with suppuration."

CERIUM, OXALATE, ... 1 gr.

Used as a remedy in the sick stomach of pregnant women, and in the vomiting of pregnancy, as well as in Phthisis, Hysteria, Pyrosis and Atonic Dyspepsia. (Dose, 1 to 3.)

PHOSPHORUS, ... 1-100, 1-50, 1-30, 1-20, 1-12 gr.

The pure transparent Gelatine we use is in no degree porous, it preserves the Phosphorus perfectly in the free state; while sugar, owing to its crystaline nature, is very porous, and will admit of rapid change in substances, of a delicate character, covered with it. We have the Phosphorus in state of solution in the excipient we employ, this insures a gradual elimination of the Phosphorus in the stomach, thus avoiding the severe irritation that is so often experienced after taking the ordinary Phosphorus Pills, which are prepared by mixing the Phosphorus in substance with the excipient, in which small fragments of Phosphorus often remain. Note remarks by Dr. Squibb, in his paper before Am. Pharm. Ass'n, Sept., '76, in which he states that Phosphorus should never be administered in substance, and if a coating be used, he commends Gelatine.

Many of the most eminent physicians throughout the country, among whom are leading specialists in the treatment of Neurotic diseases, assert that McKesson & Robbins' Phosphorus Pills are the most rational medium yet found for exhibiting Phosphorus.

PHOSPHORUS COMPOUND, McKesson & Robbins' Pills, 1/50, 1/60 & 1/100 gr.

PHOSPHORUS COMPOUND AND IRON McKesson & Robbins' Pills

THERAPEUTICAL NOTES ON SOME SPECIALTIES IN McKESSON & ROBBINS' G. C. PILLS.

ERGOTIN PILLS, ... 3 grs.

We manufacture our Ergotin with great care from the best quality of fresh, selected Ergot, and it contains, in the most potent form, all the active constituents of Ergot of Rye, each grain representing 10 grains of Ergot, and each pill being equal to half a teaspoonful of officinal fluid extract. The value of Ergotin, in the place of the crude drug and the fluid preparations, is conceded; and it is being largely administered both in this country and in Europe. It has taken a prominent place in the treatment of Neurotic diseases. Many of our most reliable practitioners, and particularly those of extended experience in Gynæcology, assert that they have never found a preparation of Ergot, in which, by experience, they felt as much confidence as in McKesson & Robbins' Ergotin Pills. The advantages of prescribing it in this form will be readily acknowledged. (Dose, 1 to 3.)

We offer our Ergotin, prepared specially for hypodermic use, in one-ounce bottles.

COCA EXTRACT, ... 1 gr.

McKesson & Robbins' Solid Extract, made from freshly imported leaves, is used in these pills. As the leaves become almost inert with age, a preparation of this nature is necessary to enable the physician to judge correctly of the value of this remedy. Coca Erythroxylon is a South American plant, used by the natives as a substitute for tea, coffee, tobacco, hashish and opium of other countries. It imparts vigor to the muscles as well as to the intellect, and enables the partaker to endure great fatigue with ease. The feeling of exhilaration, accompanying its use, is said not to be followed by any depressing effects.

JABORANDI EXTRACT, ... 3 grs.

Made of McKesson & Robbins' Solid Extract. These pills present a much better and more acceptable form of administering this powerful Diaphoretic and Sialagogue, than any of the liquid preparations. Valuable in Rheumatism and all Syphilitic troubles of long standing. (Dose, 1 to 3.)

PHOSPHIDE ZINC, ... 1-6, 1-4 and 1-2 gr.

The Phosphide of Zinc has been very successfully used by Drs. Hammond (see Dr. H.'s last book), Routh, and other prominent authorities on treatment of brain diseases, all of whom assert its efficacy. It has been used with remarkable results in severe cases of Neuralgia (see paper by Dr. Adolphus, St. L. Med. Jour., XIII. 471). P. Vigier, *Bull. Gen. de Therap.*, states that Phosphide of Zinc is more prompt and reliable in its action than free Phosphorus.

SANDAL WOOD EXTRACT, ... 1 and 2 grs.

These pills contain both the oil and resin existing in Sandal Wood, are believed to be superior to the oil alone, and are more convenient of administration. The Extract is manufactured from the wood, in our laboratory.

SOLIDIFIED COPAIBA, WITH OLEO-RESIN CUBEB PILLS, ... 3 and 5 grs.

We prepare both these ingredients in our own laboratory, with great care, and can assert their superior quality. The value of the Oleo-Resin Cubeb often offered in market is very slight, due to the fact that the largest proportion is powdered Cubeb Berries.

QUININE, SULPHO-CARBOLATE, ... 1, 2 and 3 grs.

This salt of Quinine has been very much used in some of our extreme malarial districts during the past two years. Those, who have tested it very carefully, claim that it possesses a most positive specific action in the treatment of Fever and Ague, and has proved itself eminently superior to the Sulphate of Quinine in all malarial fevers.

PHYSICIANS' POCKET CASES FOR PILLS.

Having received many inquiries for our Gelatine-Coated Pills and Granules put up in a form convenient for practitioners, and, not finding any of the ready-made pocket cases in market desirable, we have devised a number of forms and sizes of our own. The number and variety of the formulas of our Pills, together with their ready solubility have, to a great extent, obviated the necessity of carrying the bulky medicine chest, with its solution and powders.

Circular, with cuts and prices, mailed upon application.

McKESSON & ROBBINS' GRANULES.

ACONITIA, ... 1-60 gr.
ARSENIOUS ACID, ... 1-50, 1-40, 1-30, 1-20 gr.
ATROPIA, ... 1-60 gr.
BELLADONNA EXTRACT, ... 1-4 gr.
CALCIUM, SULPHIDE, ... 1-10 gr.
CODEIA, ... 1-16, 1-5 gr.
CORROSIVE SUBLIMATE, ... 1-40, 1-30, 1-20 gr.
DIGITALIA, ... 1-60 gr.
MERCURY, BIN-IODIDE, ... 1-25, 1-16 gr.
MERCURY, PROTO-IODIDE, ... 1-5, 1-4, 1-2 gr.
MORPHIA, ACETATE, ... 1-8, 1-4 gr.
MORPHIA, SULPHATE, ... 1-16, 1-10, 1-8, 1-6, 1-4 gr.
MORPHIA, VALERIANATE, ... 1-8 gr.
PODOPHYLLIN, ... 1-8, 1-4 gr.
QUINIA, ... 1-2, 1-4 gr.
STRYCHNIA, ... 1-60, 1-40, 1-30 gr.
SULPHUR, IODIDE, ... 1-25, 1-10 gr.
TARTAR EMETIC, ... 1-100, 1-20, 1-4 gr.
ZINC, PHOSPHIDE, ... 1-6, 1-4, 1-2 gr.

Physicians have experienced the need of a reliable and more pleasant form for administering these more potent remedies. The want of reliability, as exhibited in the Granules of the market by the varying action following their administration, has caused them to be avoided—and very justly—by most practitioners, who have preferred rather to use solutions, and trust to the custom of dropping, or using a teaspoon to measure their portions, although nearly as uncertain, owing to great difference in the sizes of teaspoons, and the fact that drops vary with the conditions and form of surface, from which they flow.

In our preparations, we have taken special precautions by enforcing our system of checking the weights, and, at large expense, have had our machines for division of the substances so carefully and correctly constructed, as to insure an exactness never before maintained in this class of preparations. We can, therefore, afford assurance to physicians of correct weight and perfect division. Our Granules have been appreciated and are being extensively used by the profession. Be careful and see that "McKesson & Robbins" is on the label.

A physician in St. Louis, who has for some time been using our Pills, prescribed **"Gelatine-Coated Phosphorus Pills, 1/100 gr." intending to have the McKesson & Robbins Pills** dispensed, but **did not perceive the usual effects** after administering them to the patient. Upon investigation, he found the Pills resembled ours somewhat in external appearance, but on cutting one open, he found it contained **hardly a trace of Phosphorus.** The doctor went to the druggist, who had dispensed the prescription, and found that, not having our Phosphorus Pills in stock, **he had dispensed an imitation;** the druggist claimed that he was warranted in so doing, as the physician had not taken the precaution to put the name **McKesson & Robbins** upon his prescription, although the physician had been in the habit of specifying our pills, and the druggist knew it. We have had our attention called to several cases of this character, regarding the Quinine Pills, Morphia Granules and others, when, on **failing to obtain results,** the physicians have found that they **were being imposed upon by imitations;** this has induced them to write **"McKesson & Robbins' C. C. Pills"** in full upon their prescriptions and add, **"send no others."** We have full lines of our Pills in all of the large, and in most of the small cities, and there is no excuse for substituting imitations.

Price Lists furnished upon application. See list of formulas, last page.

Private Formulas, of 3,000 or more Pills, Made and Coated to Order.

McKESSON & ROBBINS. 91 Fulton Street. New York.

Formulas of McKesson & Robbins' Pills, (Gelatine-Coated.)

Acid, Arsenious, 1-80, 1-40, 1-30 and 1-20 gr.
*Acid, Salicylic 2 1-2 and 5 grs.
Aloes, U. S., 4 grs.
Aloes and Assafœtida, U. S., 4 grs.
Aloes and Iron, 3 grs.
- Pulv. Aloes, Soc., 1-2 gr.
- Pulv. Zingib. Jam., 1 gr.
- Ferri Sulph., Exsic., 1 gr.
- Extract Conii, 1-2 gr.

Aloes and Myrrh, U. S.
Aperient.
- Ext. Nucis Vom., 1-3 gr.
- Ext. Hyoscyami, 1-2 gr.
- Ext. Coloc. Comp., 2 grs.

Assafœtida, 2 grs.
- Assafœtida, 1 1-2 grs.
- Pulv. Saponis, 1-2 gr.

Assafœtida, U. S. 4 grs.
- Assafœtida, 3 grs.
- Pulv. Saponis, 1 gr.

Assafœtida and Nux Vomica.
- Assafœtida, 3 grs.
- Ext. Nucis Vom., 1-4 gr.

*Atropia, 1-60 gr.
*Belladonna Extract, 1-4 and 1-2 gr.
Bismuth, Subnitrate, 3 and 5 grs.
Blue Pill, U. S., 1-2, 1, 2 and 5 grs.
Calomel, 1-2, 1, 2, 3 and 5 grs.
Camphor and Henbane.
- Camphora, 1 gr.
- Ext. Hyoscyami, 1 gr.

*Camphor, Mono-Bromate, 2 and 3 grs.
Cannabis Indica Extract, 1-2 gr.
Cathartic Compound, U. S.
Cathartic Vegetable, 3 grs.
- Ext. Col. Comp., pulv., 1 1-2 grs.
- Res. Podophylli, 3-8 gr.
- Res. Leptandræ, 1-8 gr.
- Jalapæ, pulv., 1-4 gr.
- Aloes Socotrin, pulv., 1-2 gr.
- Ext. Hyoscyami, 1-4 gr.
- Ol. Menthæ Pip.

Chinoidine, 1-2, 1 and 3 grs.
Cinchonia, Sulphate, grs.
Cinchonidia, Sulphate, 1, 2, 3 and 5 grs.
Colocynth Comp. Extract, 3 grs.
Colocynth, Ipecac and Blue.
- Ext. Coloc. Comp., pulv., 2 grs.
- Pulv. Ipecacuanhæ, 1-4 gr.
- Pil. Hydrarg., 2 grs.

Cook's, 3 grs.
- Pulv. Aloes, Soc., 1 gr.
- Hydrarg. Chlor., Mite, 1-4 gr.
- Pulv. Rhei., 1 gr.
- Pulv. Saponis, 1-4 gr.

Copaiba, 3 grs.
Copaiba and Oleo-Resin Cubebæ, 3 grs.
- Pil. Copaibæ, 2 grs.
- Oleo-Resin Cubebæ, 1 gr.

Copaiba and Oleo-Resin Cubebæ, 5 grs.
- Pil. Copaibæ, 3 grs.
- Oleo-Resin Cubebæ, 2 grs.

*Corrosive Sublimate, 1-40, 1-30 and 1-20 gr.
*Digitalin, pure, 1-60 gr.
Dinner (Cole's).
- Pil. Hydrarg., 1 1-5 grs.
- Pulv. Aloes Soc., 1 1-5 grs.
- Pulv. Jalapæ, 1 1-5 grs.
- Ant. et Pot. Tart, 1-50 gr.

Dinner (Lady Webster's), 3 grs.
- Pulv. Aloes, Soc., 1 4-5 grs.
- Pulv. Mastiches, 2-5 gr.
- Pulv. Rosæ Gallicæ, 2-5 gr.

*Emmenagogue.
- Ergotin, 1 gr.
- Ext. Helleb. Nig., 1 gr.
- Ferri Sulph. Exsic., 1 gr.
- Aloes Soc. Pulv., 1 gr.
- Ol. Sabinæ, 1-4 gr.

*Ergotin, 3 grs.
Ferruginous (Blaud), 3 and 5 grs.
- Ferri Sulphas.
- Potassæ Carb. aa

*Grindelia Robusta Extract, 3 grs.
*Guarana Extract (Paullinia), 3 grs.
*Hebane Extract, 1 gr.
Hepatic.
- Pil. Hydrarg., 3 grs.
- Ext. Coloc. Comp., 2 grs.
- Ext. Bellad., 1-4 gr.

Hooper's, 2 1-2 grs.

Hypophosphites, Compound.
- Chinii Hypophos., 1 gr.
- Sodii " 2-4 gr.
- Potassii " 1-2 gr.
- Ferri " 1-4 gr.

*Iodide of Iron (Blancard's formula), 1 gr.
Iodoform, 1 gr.
Iodoform and Iron, 2 grs.
Ipecac & Opium(Dover's Powd.,U.S.) 2 1-2 grs.
Ipecac & Opium(Dover's Powd.,U.S.) 5 grs.
Iron by Hydrogen (Quevenne's), 1 and 2 grs.
Iron, Citrate and Quinine, 1 and 2 grs.
Iron, Proto-Carb. (Vallet's Mass.), 2 and 3 grs.
Iron, Proto-Carb. (Vallet's Mass.), 5 grs.
*Iron, Proto-Chloride, 1 gr.
Iron, Quinine and Strychnine.
- Ferrum Redactum, 1 gr.
- Quiniæ Sulphas, 1 gr.
- Strychnia, 1-60 gr.

Laxative (Cole's).
- Res. Podophylli, 1-10 gr.
- Hydrarg. Chlor., Mite, 1 gr.
- Ext. Cel. Comp., pulv., 3 grs.

Lime, Lacto-Phosphate, 5 grs.
*Mercury, Bin-Iodide, 1-16 and 1-16 gr.
*Mercury, Prot-Iodide, 1-5, 1-4 and 1-2 gr.
Morphine, Acetate, 1-8 and 1-4 gr.
*Morphine, Sulphate, 1-16, 1-10, 1-8, 1-6, 1-4 gr.
Morphine, Valerianate, 1-8 gr.
Neuralgia (Brown-Sequard).
- Ext. Hyoscyami, 2-3 gr.
- " Conii, 2-3 gr.
- " Ignatii Amaræ, 1-2 gr.
- " Opii, 1-2 gr.
- " Aconiti, 1-3 gr.
- " Cannab. Indicæ, 1-4 gr.
- " Stramonii, 1-5 gr.
- " Belladonnæ, 1-6 gr.

Neuralgia (Dr. Gross').
- Quiniæ Sulphas, 2 grs.
- Morphiæ Sulphas, 1-20 gr.
- Strychnia, 1-30 gr.
- Acid. Arseniosum, 1-20 gr.
- Ext. Aconiti, 1-2 gr.

Neuralgia, (Dr. Gross',) as above, without Morphine.
Nux Vomica Extract, 1-2 gr.
Opium, U. S., 1 gr.
*Opium Extract, 1-4, 1-2 and 1 gr.
Opium and Acetate of Lead, No. 1, 2 grs.
- [Opii, Pulv. 1 gr. Plumbi Acet., 1 gr.]

Opium and Camphor.
- [Opium, 1 gr. Camphora, 2 grs.]

Pepsin, 5 grs.
Pepsin and Bismuth, 5 grs.
- Pepsin, 2 grs.
- Bismuth Subnit, 3 grs.

Pepsin, Bismuth and Strychnine. 5 grs.
- Pepsin, 2 1-2 grs.
- Bismuth Subnit, 2 1-2 grs.
- Strychnia, 1-60 gr.

Phosphates Iron, Quinine and Strychnine.
- Ferri Phosphas., 2 grs.
- Quiniæ Phosphas, 1 gr.
- Strychniæ Phosphas, 1-60 gr.

Phosphorus, 1-100, 1-50, 1-30, 1-20 and 1-12 gr.
Phosphorus Compound, No. 1.
- Phosphorus, 1-100 gr.
- Ext Nucis Vomicæ, 1-4 gr.

Phosphorus Compound, No. 2.
- Phosphorus, 1-60 gr.
- Ext. Nucis Vomicæ, 1-4 gr.

Phosphorus Compound and Iron.
- Phosphorus, 1-100 gr.
- Ferri Phosphas, 1-2 gr.
- Ext. Nucis Vomicæ, 1-8 gr.

Podophyllin, 1-8, 1-4, 1-2 and 1 gr.
Podophyllin Compound.
- Podophyllin, 1-2 gr.
- Ext. Hyoscyami, 1-8 gr.
- Ext. Nucis Vomicæ, 1-16 gr.

Podophyllin and Blue.
- Podophyllin, 1-2 gr.
- Pil. Hydrarg., 2 1-2 grs.

Podophyllin, Capsicum and Belladonna.
- Podophyllin, 1-4 gr.
- Ext. Bellad. Alc., 1-8 gr.
- Pulv. Capsici, 1-8 gr.

Podophyllin, Ext., Coloc. and Belladonna.
- Podophyllin, 1-2 gr.
- Ext. Coloc. Comp., 2 grs.
- Ext. Belladon., 1-4 gr.

*Quinine, Carbolate, 1 gr.
*Quinine, Salicylate, 1 gr.
*Quinine, Sulphate & Bi-Sulphate, 1-4 & 1-2 gr.
Quinine, Sulphate and Bi-Sulphate, 1 gr.
Quinine, Sulphate and Bi-Sulphate, 1 1-2 grs.
Quinine, Sulphate and Bi-Sulphate, 2 grs.
Quinine, Sulphate and Bi-Sulphate, 3 grs.
Quinine, Sulphate and Bi-Sulphate, 4 grs.
Quinine, Sulphate and Bi-Sulphate, 5 grs.
*Quinine, Sulpho-Carbolate, 1, 2, 3 and 5 grs.
Quinine and Aloes, 1 gr.
- Quiniæ Sulphas, 3-4 gr.
- Pulv. Aloes Soc., 1-4 gr.

Quinine, Arsenic and Nux Vomica.
- Quiniæ Sulphas, 1 gr.
- Acid. Arseniosum, 1-60 gr.
- Ext. Nucis Vomicæ, 1-4 gr.

Quinine and Iron.
- Quiniæ Sulphas, 1 gr.
- Ferrum Redactum, 1 gr.

Quinine and Carbonate Iron.
- Quiniæ Sulphas, 1 gr.
- Ferri Subcarb., 2 grs.

Quinine, Phosphorus and Nux Vomica.
- Quiniæ Sulphas, 1 gr.
- Phosphorus, 1-60 gr.
- Ext. Nucis Vomicæ, 1-40 gr.

Quinine, Phosphorus and Nux Vomica.
- Quiniæ Sulphas, 1 gr.
- Phosphorus, 1-60 gr.
- Ext. Nucis Vomicæ, 1-4 gr.

Quinine Compound.
- Quiniæ Sulphas, 1 gr.
- Ferrum Redact., 1 gr.
- Acid. Arseniosum, 1-32 gr.

Quinine Compound and Extract Dandelion.
- Quiniæ Bi-Sulph., 1 1-4 grs.
- Ferri Sulph., Exsic., 2 grs.
- Acid. Arseniosum, 1-24 gr.
- Extract Taraxici, 1 1-4 grs.

Quinine Compound and Strychnine.
- Quiniæ Sulphas., 1 gr.
- Ferrum Redactum, 1 gr.
- Strychnia, 1-20 gr.
- Acid. Arseniosum, 1-20 gr.

Quinine, Valerianate, 1-2 gr.
Rheumatic.
- Ext. Coloc. Comp., 1 1-2 grs.
- Ext. Colch. Acet., 1 gr.
- Ext. Hyoscyami, 1-2 gr.
- Hydr. Chlor., Mite, 1-2 gr.

Rhubarb, U. S.
Rhubarb Compound, U. S.
Santonin, 1 gr.
Santonin and Calomel.
- Santonin, 1 gr.
- Calomel, 1 gr.
- Chocolate.

Strychnine, 1-60, 1-40 and 1-30 gr.
*Strychnine Compound.
- Strychnia, 1-100 gr.
- Phosphorus, 1-100 gr.
- Ext. Cannab. Indic., 1-16 gr.
- Ginseng, 1 gr.
- Ferri Carb., 1 gr.

*Sulphur, Iodide, 1-20 and 1-10 gr.
*Sumbul Extract, 1 gr.
Syphilitic (Ricord's modified).
- Hydr. Prot-Iodide, 1-2 gr.
- Lactucarium, 1-2 gr.
- Ext., Opii 1-10 gr.
- Ext., Cicutæ 1 1-2 grs.

Tonic (Dr. Aiken).
- Quiniæ Sulph., 1 gr.
- Acid. Arseniosum, 1-50 gr.
- Ferrum Redactum, 2-3 gr.
- Strychnia, 1-50 gr.

Triplex.
- Extract Aloes, 2 grs.
- Podophyllin, 1-2 gr.
- Pil. Hydrarg., 1-2 gr.

Triplex (Dr. Francis).
- Pulv. Aloes, Soc. Pil. Hydrarg.
- Pulv. Scammonii, Ol. Tigilli.
- Pulv. Myrrhæ. Ol. Carui.

Valerian Extract, 3 grs.
*Zinc, Phosphide, 1-6, 1-4 and 1-3 gr.
*Zinc, Phosphide and Ext. Nux Vomica.
- Zinci Phosphoretum, 1-10 gr.
- Ext. Nucis Vomicæ, 1-4 gr.

Zinc, Valerianate, 1 gr.

RECENT ADDITIONS TO LIST.

Aconitia, 1-60 gr.
Aloin, 1 gr.
Ammonium, Valerianate, 1 gr.
Blue Pill Compound.
- Pil. Hydrarg., 1 gr. Pulv Opii, 1-2 gr.
- Pulv. Ipecac, 1-4 gr.

Caffeia, Citrate, 1 gr.
Calcium, Sulphide, 1-10 gr.
Calomel and Opium, (2 grs.—1 gr.)
Cathartic Improved.
- Ext. Colocyn. Comp. Pulv., 1 gr.
- Jalapæ pulv., Res. Lept., aa, 1-2 gr.
- Ext. Hyoac., Ext. Taraxici, aa, 1-4 gr.
- Res. Podoph., 1-4 gr. Ol. Menthæ Pip.

Cerium, Oxalate, 1 gr.
Charcoal, Willow, 5 grs.
Cinchona Bark Alkaloids.
- Quiniæ Sulph., 1-2 gr.
- Quinidiæ Sulph., 1-2 gr.
- Cinchoniæ Sulph., 1-2 gr.
- Cinchonidiæ, Sulph., 1-2 gr.

Coca Extract, 1 gr.
Croton Oil, 1-2 gr.
Gelsemium Extract, 1 gr.
Hydrastis (White Alkaloid), 1-2 and 1 gr.
Iron, Cit. and Strychniæ, (1 gr.—1-60 gr.)
Iron, Dialysed (Scales), 2 grs.
Iron, Ferrocyanide, 3 grs.
Iron, Lactate, 1 gr.
Iron, Valerianate, 1 gr.
Jaborandi Extract, 3 grs.
Opium and Acet. Lead, No. 2, (1-2—1 1-2 gr.)
Ox Gall Comp., 3 grs.
[Fel Bovin. desp., 2 grs. Pulv. Zingiber, 1 gr.]
Phosphorus Comp., No. 3, (1-50 gr.—1-8 gr.)
Phosphorus and Iron, (1-60 gr.—2 grs.)
Phosphorus, Iron and Quinine.
- Phosphorus, 1-100 gr.
- Ferri Carb. (Vallet's), 1 gr.
- Quiniæ Sulph., 1 gr.

Phosphorus, Iron, Quinine and Nux Vomica.
- Phosphorus, 1-100 gr.
- Ferri Carb. (Vallet's) 1 gr.
- Quiniæ Sulph. 1 gr.

Piperin Compound.
- Piperin, 1-4 gr.
- Hydr. Chlor. Mite, 1-4 gr.

Podophyllin and Leptandrin, (1-2 gr.—1 gr.)
Poke Root Compound.
- Ext. Phytolaccæ, Alc., 2 grs.
- Ext. Stillingiæ, " 1 gr.
- Ext. Stramonii, " 1-6 gr.

Potassium, Bromide, 2 and 5 grs.
Quinidia, Sulphate, 1, 2 and 3 grs.
Quinine and Strychnine, (1 gr.—1-60 gr.)
Quinine, Iron and Nux Vomica.
- Quiniæ Sulph., 1 gr.
- Ferri Carb. (Vallet's), 2 grs.
- Ext. Nucis Vom., 1-4 gr.

Salicin, 2 1-2 and 5 grs.
Salicylic Acid with Morph. (2 1-2 grs.—1-12 gr.)
Salicylic Acid with Morphine, (5 grs.—1-8 gr.)
Sandal Wood Ext. (McK. & R.), 1 and 2 grs.
Squill Compound, U. S.
Tartar Emetic, 1-100, 1-20 and 1-4 gr.

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FROM PROFESSOR BUNSEN, HEIDELBERG.	"The analysis shows that in [illegible] parts were found Sulphate of Soda 277.734; Magnesia [illegible], in addition to Carbonate of Soda, Chloride of Sodium," &c.
FROM PROFESSOR AITKEN, F.R.S., PROFESSOR OF PATHOLOGY, ARMY MEDICAL SCHOOL; AUTHOR OF THE "SCIENCE AND PRACTICE OF MEDICINE," 5th edition.	"Those who have used Pullna and Friedrichshall prefer the Hunyadi Janos Water to either, because the bulk of the dose is less than either of those waters, and the action is less drastic, producing no distress or uneasiness."
FROM PROFESSOR T. LAUDER BRUNTON, F.R.S., PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS AT ST. BARTHOLOMEW'S HOSPITAL; EXAMINER IN MATERIA MEDICA, UNIVERSITY OF LONDON.	"More frequently prescribed than any other by Physicians in the General Hospital, Vienna; its taste being more pleasant than that of its rivals, while its efficacy as a purgative equalled or surpassed them."
FROM PROFESSOR DR. VIRCHOW, DIRECTOR OF THE PATHOLOGICAL INSTITUTE, BERLIN.	"I have tried the Hunyadi Janos water sent me in a large number of persons, with invariably good and prompt success. It is a most valuable item in our Balneological treasury of remedies."
FROM PROFESSOR DR. VON BAMBERGER, DIRECTOR OF THE MEDICAL KLINIK IN THE UNIVERSITY OF VIENNA.	"I have prescribed the Hunyadi Janos waters with remarkable success in all those diseases for which aperient waters are used."
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FROM DR. FORDYCE BARKER, PROFESSOR OF CLINICAL MIDWIFERY, AND DISEASES OF WOMEN, BELLEVUE HOSPITAL, NEW YORK.	"It requires a less quantity; that it is less disagreeable to the taste; less unpleasant in its efficient action, and more certain as an aperient, than any of the waters that I have before been accustomed to prescribe."
FROM DR. L. A. SAYRÉ, PROFESSOR AND SURGEON AT BELLEVUE HOSPITAL, NEW YORK.	"I have used the Hunyadi Janos water in many cases of the rheumatic and gouty diathesis, with very marked benefit. In cases accompanied with great obesity I prefer it to any other laxatives.
FROM DR. VON BULH PROFESSOR OF MEDICINE IN THE UNIVERSITY OF MUNICH.	"Among all known aperient waters the Hunyadi Janos water indisputably occupies the first position."

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***A prominent peculiarity* and advantage consists in associating iron *not* in a *sesquioxide* condition, but in the more easily assimilable form of a *protosalt*, with all the valuable alkaloids of Peruvian Bark, in an elegant and permanent compound, where the chemical equilibrium of each principal is undisturbed. We unhesitatingly express the opinion that no more pleasant and desirable chalybeate and tonic has ever been offered to the profession; and so far as our knowledge extends, this result (the combination of the *protosalts* of Iron with the active principles of Peruvian Bark,) is not attained in any of the numerous preparations crowded upon the public as a substitute and imitation of our compound.**

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Our Elixir of Peruvian Bark with Protoxide of Iron is sold in bottles holding one pint, also in two quart and gallon package. If physicians desiring to prescribe this preparation will direct their druggists to procure the larger bottles, they can order it by prescription in such quantities as they may desire for their patients.

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